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Mentally retarded children were studied for their conceptual development and movement from the ability to perceive persons as separate entities but not in significant interaction (aprasia) to group activity. A quasi-projection technique was used to test six groups of 20 boys each, including institutionalized and family-based normals (aged 6 and 12) and retardates (aged 12, with IQ's to 65 and mental ages 6 to 7). Each child analyzed one group and then synthesized another in the settings of home, play, work, and school to solve a problem. Evaluation considered whether the following group characteristics were present and how abstract they were: the identifiable unit, social structure, role behavior, reciprocal relations, normative behavior, common interests, common goals, and continuity. Results indicated a greater incidence and degree of aprasia among retardates than normals of the same chronological age, and a greater degree among the institutionalized than those in a family setting in comparable groups ($p=.001$ for both); little or no difference between retardates and normals of the same mental age; more difficulty in synthesizing than in analyzing a similar situation ($p=.02$ to $.001$); and poorer scoring on comprehension of role, normative behavior, and group identification. (Author/SN)

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U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
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Lloyd A. Taylor

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Phillips University

Enid, Oklahoma

THE DEVELOPMENT OF THE SOCIAL CONCEPT GROUP AMONG MENTALLY RETARDED CHILDREN

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INTRODUCTION

THEORETICAL BACKGROUND

I. Brief Statement of Purpose:

This is to be an exploratory study to ascertain some of the differences that exist in the concepts of groups held by mentally retarded children and by normal children in both institutional and family social settings.

II. The Literature:

There seems to be a paucity of literature in this specific area of inquiry. Rosenberg (35) made a detailed search of the literature from 1927 through March of 1961. He stated that there was a relatively limited number and variety of studies about the basic processes of problem solving and concept formation. Lois DeFleur (8) in a recent article made the same general statement about the extent of the literature in this specific area. Capobianco and Cole (6) indicated that they, too, had difficulty finding material in the literature relative to social concepts among children. There are many studies of a general nature from which inferences may be made which are cited in the following section.

III. The Theoretical Background of the Present Study:

A. The Group. The study of the group is the basic discipline in sociology. Normal adults in a complex society have become so accustomed to comprehending the formation and the functioning of groups that they often overlook the extent of abstraction necessary to understand people in significant interaction. The concept of the group seems deceptively simple while it is actually amazingly complex. Bruno Bettelheim spoke of this concept: (5)

> Whatever the sequence of learning to find one's place in time and in space, a correct ordering of events must precede prediction, and prediction must precede action, because otherwise it would be random action without plan or any hoped for results. In the normal course of events all of this takes place without much conscious effort, unless we are engaged in scientific inquiry. But it does not change these facts that for the most of us all this ordering and predicting takes place on a semiconscious level.

The ordering of events and the predictions of action imply interactions with social objects as well as reactions to material objects. Group formation and the integration of the individual into the group are manifestations that such ordering and prediction has taken place. The degree of ordering and prediction becomes, therefore, the focus of investigation of group activity.

1. The group,--its characteristics. Students of the group, most especially of the small group, have given various dimensions that define the extent and the limits of the group. (7) (19) (20) If the basic concept of the group was to be studied it was necessary to accept a list of identifying characteristics that were at the same time comprehensive enough to define the group and simple enough to be measured in small children and mental retardates. Fichter (9) gave such a list:

1. A unit identifiable by members and outside observers.
2. A social structure.
3. Individual roles (patterned actions of a personal sort).
4. Reciprocal relations.
5. Norms of behavior.
6. Common interests and values.
7. Goal directed.
8. Relative permanency or continuity.

A person who has a concept of the group coordinates these characteristics in varying degree as a part of that concept. Therefore, the degree to which these characteristics are present in a person's mind, either explicitly or implicitly, will indicate that person's concept of the group. The task of this study will be to probe for and measure the extent of each of these characteristics in each of the subjects.

The individual observes the human group in existence. He must analyze its parts and their functioning if he is to do more than observe uncritically the effects of the group action. Later, when he faces another situation in another context he must respond to a similar class of cues from the previous experience. He must exercise foresight so that he may predict the outcome of the concerted action. He must exercise insight to allow for differences in the situation. He must use language adequate to convey his analysis and his solution of the situation to others with whom he would interact. Insight (analysis) and foresight (synthesis) are the elements of abstraction. Both are implied extensively in the list of group characteristics cited.

2. The group,--an integral part of society. These processes of abstraction are being carried on constantly in society. The ability of persons to make these abstractions becomes a crucial factor in societal survival. Hsu (20) maintained: "The dynamic

growth or stagnation of a society depends to a large extent upon its ability or inability to generate new and more human groupings." Early in history man learned to manipulate materials and form tools for himself. In doing so he exercised an ability to conceptualize additive powers to accomplish desired ends. In a sense, group formation is a social tool by which the individual conceptualizes the additive powers of other personalities in interaction to accomplish desired ends. The study of the formation of the group concept becomes, therefore, a matter of deep social significance.

3. The group,--a means of personal integration. The ability to perceive the nature of group relationships has important personal significance, too. Argyris (2) stated that the personality becomes complete, organized and integrated only when it interacts with other people, ideas and social organizations.[1] Or again (3): "Basic to our model is the assumption that all human beings are incomplete by themselves. They gain their wholeness through interaction with others." Argyris cited various contemporary sources that substantiated this view, - Sullivan, Lewin, Fromm, McDougal, May and Horney. The mature individual sees himself constantly in relationship with his fellows. Therefore, to investigate how and to what extent he comes to see himself in interactive relationship is to ascertain one of man's most basic needs.

4. The group,--the means of participating in the larger society. Parsons and Bales (31) discussed the great demand put upon an individual to participate in the larger society by becoming a part of an ever increasing number of groups. They challenged the idea that any large scale social system is a monolithic organization. Rather, the larger social system is an intricate network of interdependent and interpenetrating subsystems. Interpreting these subsystems and finding one's place in them is a task of major proportion. The more complex the society becomes, the more discriminating and capable the individual must be to participate in the ever widening circle of subsystems (31). More than this, they maintained that the personality structure of the individual is in some sense a "mirror-image" of the social structure he has experienced as he has perceived the social system. (31)

There is, then, a fundamental relation between society and personality. When one is studied the other is not only implicated but to some degree will become apparent; this suggests a methodology of study to be discussed later. It also suggests the increasing need to understand the formation of the group concept as the society becomes more complex.

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[1] See also (11) and (35).

5. The group,--supremely important in American society. Hsu (20) suggested that life in American society is especially geared to group living outside the family setting. In some societies, the clan provides a family basis for need fulfillment; in other societies the detailed prescriptions and proscriptions of caste provide a well defined pattern of behavior relatively easy to follow. In American society, however, the support of the family lessens as the person grows older and the prescribed roles are few. The individual must form his own system of behavior by his interaction with others. The participation of the individual in society is contingent upon his ability to relate himself to groups in meaningful ways. This study proposes to ascertain how this is done by observing the development of the concept of the group in normal children in contrast to the development of the same concept in mentally retarded children.

B. The Developing Child. It is apparent that the newborn child does not understand or participate in group activity in an active way. This implies that within the developmental process lies some of the explanation of the development of the group concept.

1. Development by ordinal, not interval, stages. As the child develops, he becomes more and more capable of participating in complex group actions. Sullivan (39) suggested a three-fold developmental process: prototaxic, parataxic, and syntaxic. Later he described stages in child development that had a social base (39). Piaget, also, wrote of developmental stages. A major contribution he made to this theoretical framework was that the stages of development in the individual form an ordinal, but not necessarily an interval scale (10).[2]

2. The turn from self to others. DeFleur (8) suggested that the child gradually turns from more concrete thought processes that are egocentric to more abstract processes that tend to be objective. Parten and Newhall (33) noted that when three two-to-three-year-olds are put together in a play situation it is typical for social contact to occur between only two at a time. Not until age four or five is it common for three or more children to

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[2] Erikson maintained almost the same position when he said, "The maturing organism continues to unfold, not by developing new organs but by a prescribed sequence of locomotive, sensory and social capacities." in "Symposium on the Healthy Personality," p. 97.

interact simultaneously. Alfred Baldwin (4)[3] became even more specific when he said: "The three- or four-year-old cannot . . . play a competitive game. He may observe the behavior of other people in what is called a game, but for him only the superficial aspects of the behavior are meaningful." Dr. Babchuk, in a class discussion, expressed his belief that a small child cannot enter into a primary relationship with anyone. Evidently the early experiences of the child are subjective, egocentric and need fulfilling as interpreted by his own bodily requirements. The child lives for some years without a significant concept of group life or activity.

There seems to be no specific agreement on a definite numerical age when complex abstract concepts of social relationships begin to develop. DeFleur suggested that most students of the matter believe that they begin by about six to eight years.[4] Sullivan (39) suggested that the change in values from what the child should do to get what he wants to what he should do to contribute to the happiness or to the support of the prestige and feeling of well being of his chum takes place at about the age of eight and one-half to ten years. These data suggest that the fruitful field of inquiry for contrasting purposes would be among normal children of ages six and ten or twelve and among retardates with an I.Q. level of 60 (mental age 6-7) and a chronological age of twelve.

C. The Child in Relation to Groups. Miller and Dollard (29) suggested the nature of the social matrix from which social learning arises. To them, all learning was socially oriented. It found its source either in interpersonal experiences or in imitation of significant others. The child, therefore, is closely related to the group in which he has nurture and to the significant others that compose the group.

1. Relating by role perception. The child learns about groups as he perceives the roles that people play within the group. Hartung (18) said: "The person becomes conscious of himself as a

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[3] According to Maier (25), Piaget held a similar view: It should be stressed that the child can evaluate only those relationships which pertain to one object or precept. Relationships between two or more objects are still beyond his comprehension because he cannot conceive of several points or ideas beyond those of a single object, as a part of a still larger whole (said of three- to seven-year-olds), p. 119.

[4] She also cited Vinacke, E.W., "Concept Formation in Children of School Age," pp. 527 ff.

member of groups because he is continually taking a succession of roles in different groups." Tryon (40) made a similar statement and concluded that one of the difficult tasks in growing up is that of correctly sensing the new behavior expected by one's peers. If a person does not correctly sense or perceive his role, the whole group may become disturbed and disorganized. Ruesch (36) gave the way this role concept is structured in the mind of a mature person: "The mature and integrated person analyzes a given situation, perceives the relevant cues, assigns roles to self and other persons and thereupon uses the techniques which fit the roles." The ability to perceive role relationship, therefore, is a crucial variable in the concept of the group. Only as the individual perceives roles will he be able to predict the behavior of others and adjust his own behavior accordingly. The measurement of role perception then becomes an integral part of this study.

Some studies have been made of role perception. Samuel Guskin (16) reported the findings of Lucito. In brief, they were that bright children see themselves successful in interpreting objective reality and as definers of social reality for others. DeFleur (8) carefully studied role comprehension of children.

2. Relating by assuming the role of the other. The corollary of learning social roles is learning to take the role of the other. By this means a person casts himself into a situation, actually or symbolically, and designs or charts a course of action. Sullivan described these "as if . . ." situations. Carl Rogers (34) wrote that a person's values have their origins in such relationships. Masland (26) wrote describing the child rearing practices of the Trukese. The children are severely limited because there is no adult supervision of them. Adults treated children as though they were irresponsible. Even the word for child means, "one who does not comprehend." The lack of significant others for models created serious difficulties. The growing ability of a person to take the role of another can be measured. It becomes indicative of the development of a concept of the group with the individual.

3. Relating to the group by developing a "self system." As the child matures he builds for himself a "self system." This self system is a combination of his understanding of the roles expected, his ability to take the role of the other and his interpersonal response to significant others. Sullivan (39) placed great emphasis upon the self system concept. He saw it as the means to meet the irrational character of culture created by the prescribed ways of doing things that must be lived up to in order to maintain workable, profitable and satisfactory relations with others. The self system is a distinctive pattern of interpersonal response traits that characterizes social conduct. These traits are consistent and stable response dispositions that channel the behavior of the individual in a variety of social situations. (22) If this is true, generalizations from the observations of behavior in another

should have a large degree of consistency and reliability.

4. Relating to the group becomes a matter of interpersonal competence. The end result of the relationship to the group is the development of interpersonal competence. This is the capability to meet and deal with a changing world, to formulate ends and to implement them. Foote (11) stated: "Competent personalities in contrast to adjusted ones have the qualities, skills and orientations which ideally enable them to cope with whatever confronts them insofar as any human being can do." The degree of this competence is indicative of the degree of maturity.

The child in relation to group life may be summarized in a few brief statements. The child is related to the group in that it matures within the confines of a specified group life, - "a cummunity of fate." This group nurtures him for survival and provides him early learning situations. It challenges him to comprehend the multiplicity of roles of others and provides him a place to develop roles for himself. Differences in the groups encountered will account for differences in the concept of the group formed in individuals. In the end, the child's great endeavor in life will be to become competent in fulfilling his own various roles, few or many though they may be, and transmitting them to others.

D. The Mentally Retarded Person. Another dimension of this study is the mentally retarded person. It is important, therefore, to define this dimension.

1. The mentally retarded person described in social terms. The mentally retarded person is to be found maturing in the complex of society, too. He is faced with the multitude of groups with their multiple, confusing roles. He must develop interpersonal competence if he is to minimize anxiety (43).

> Some of the characteristics common to the mentally subnormal make it difficult for them to integrate easily into a normal social group, since they are frequently lacking in verbal ability, resourcefulness, judgement, coordination and social skills. They are more likely to be followers than leaders, and may need direction in planning their leisure activities.

The lack of social skills noted here is of particular importance. Relevant questions are: What are these social skills? How are they related in origin to the concept of the group held by the actor? Is it possible to have social skill of any degree without a group concept?

Another generalization that may be drawn is that retardation may be defined by social variables as well as or in contrast to mental or intellectual variables. Sarason (37) stated that dependence upon I.Q. as the sole criterion of mental deficiency is largely an American phenomenon. In England as early as the Mental Deficiency Act of 1913, mental deficiency was measured in terms of social adequacy. Tredgold (43), cited in the World Health Organization Bulletin, defined amentia as ". . . a state of incomplete mental development of such a kind and degree that the individual is incapable of adapting himself to the normal environment of his fellows in such a way as to maintain existence independently of supervision, control, or external support." Sarason's summary indicated (37):

> I think . . . we may say that the fundamental purpose of mind is that of enabling the individual so to adapt his conduct to the requirements of the normal environment of his race as to maintain an independent existence; that if he possesses this capacity he must be regarded as normal; but that if he lacks this essential mental attribute he must be regarded as abnormal and mentally defective.

Masland (26) stated the issue even more sharply: ". . . mental retardation or mental deficiency (in other than severe cases), regardless of cause become problems only insofar as they interfere with the individual to function as a member of his society." Social skills inherently involve group life. Group life, in turn, involves a group concept which will call the group into being or will recognize its presence. Therefore, what these writers have implied was that the group concepts of the mentally retarded were inadequate or incomplete to equip them for group participation. However, no effort was made to measure this underlying factor. Sarason (37) did suggest that a new battery of scales was needed which would predict to some degree the ability to develop social and occupational skills adequate for social living. He suggested that these scales should be divorced as far as possible from the I.Q. concept.

This is not to suggest that I.Q. is irrelevant. Several studies found a high correlation between I.Q. and social skills (28). Parten and Newhall (33) found a relation between leadership and I.Q. Capobianco and Cole (6) suggested that I.Q. is a good predictor of social behavior, - much more so than chronological age. This is to suggest that I.Q., chronological age and mental age must all be taken into account.

2. The growing complexity of American life in relation to the retardate. Two factors in American society heighten the need of clear group concepts. First, American society is structured on a highly competitive basis with an emphasis upon the performance of

the individual. This is in sharp contrast to the less complex societies such as the Hutterites. Masland (26) discussed the minimal retardation problem among them for they have a group life that is cooperative, not highly differentiated and with the community as its major emphasis.[5] Second, in American social groupings the retardate often has the opportunity to play but one role, - that of follower. His ideas are not taken and used. Within a constant period of time one child may have many more times the opportunity to have specific practice in meeting social situations than another child (1). Thus, by ability and by opportunity, the retardate may live on the margin of group life, always playing one role, not able to compete. His perception of group life would be somewhat altered from that of a normal child.

Godfrey Stevens (38) listed desirable goals for educating the mentally retarded. He said that their learning should be directed toward:

Maintaining a state of physical well being.
Living safely.
Understanding one's self.
Getting along with others.
Communicating ideas.
Using leisure time.
Travel and moving about.
Earning a living.
Being a homemaker.
Enjoying life through appreciation of art, dance, music.
Adjusting to forces of nature.
Managing one' money.

If these summarize desired goals for retardates, they highlight the need for a clear concept of group functioning on the part of the retardate. Most, if not all, of the above cited goals imply human interaction at the group level.

E. Institutionalization. Another variable that can exert influence is institutionalization. The rigors of the routine of an institution may stultify both normal and retardate socialization. The limited interpersonal contacts, the few roles to observe and even fewer to play, the yielding of the individual to a time schedule may produce a type of behavior which is sharply marked by the resulting social deprivation. Goldfarb (12) (13) asserted that institutional life resulted in a dramatic arrest in all parts of the child's development. He was especially concerned over the child's asocial behavior. This suggested that studies of subjects should be made in both an institutional setting and a family type setting.

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[5] Note especially his specific list of ways the Hutterites provided for retardates among them.

F. A New Social Concept. An interesting phenomenon has been observed with certain retardates. They may know the meaning of each word in a sentence but they do not understand what the words mean in combination. An act can be executed upon command but the purpose of the act is not understood. Reading may be possible but the appreciation of what is read is lacking. A general concept cannot be formed, but details can be enumerated. Henri Pieron, (21) French Semanticist, called this particular behavior "semantic aphasia." The data presented thus far show that this condition is analagous to how retardates may perceive persons in groups. They may be able to understand each person, recognize him on demand and react to routinized stimuli. However, they may not be able to see these persons in significant group interaction. A new word is proposed for this social concept; it is "aprasia." This word is derived from two Greek words: "prasia" which meant the ordered rows in a garden in Classic Greek and ranks or orders of men in later Koine Greek; and "a," the alpha privative, which negates the noun with which it is associated. Henceforth, "aprasia" will mean perceiving persons as separate entities but not perceiving them in meaningful or significant interaction in group activity.

Summary of the Theoretical Background and Its Implications:

The concept "aprasia" may be used in contrast to group ("prasia") to describe contrasting conditions of social comprehension and to infer possible movement from one to the other on the part of a given individual in society. Aprasia denotes a world filled with people with whom the individual is associated but whom he comprehends as persons in separate interaction with himself. This interaction is singular, temporary and serves his egocentric needs. Because the relationship is seen as a means to serve his own needs, his relation to the individual is affectual. He likes the person who gratifies his immediate needs; he dislikes one who frustrates him or heightens his anxiety. When the individual is inevitably involved in group functioning (as he is when he is part of a school or institutional bureaucracy) he perceives very little of the functioning of the system and continues to relate to individuals on an affectual basis.

The contradictory term is the group. It also denotes a world filled with people whom the individual comprehends in the complexity of their total and multiple interaction. This interaction is reciprocal and is perceived as being dynamic in the sense that the additive powers of interaction can accomplish what the individual cannot do by himself. The individual looks beyond the present to future goal fulfillment and perceives the group as a social tool to attain that goal. His relation to the persons within the group becomes more instrumental or utilitarian. He may not particularly like or dislike members of the group; his basis of evaluating them is their functioning in relation to abstracted goals. When the person with a group concept is inevitably involved in group functioning he perceives the structure of the group, analyzes the demanded roles, draws upon his own past experiences and integrates himself into the multiple, interactive relationship.

It is possible to conceive of a threshold area between these two positions. Hopefully, the individual moves from the position of aprasia across the threshold area into the position of group perception and participation. From the theoretical background presented, this movement is related to chronological age, mental age, and opportunity for social observation and participation. If there is movement, the position of a given individual may be ascertained by measuring the degree of his group concepts and abstracting from these his relative position.

What enables one to arise from aprasia to group concept that in turn makes possible group participation? The theoretical background suggests four sources of interacting and interdependent components. Two are found within the individual: chronological age (CA) and mental age (MA). The other two are to be found in the social setting: social expectation (SE) and social opportunity (SO).

Chronological age implies a general physical development which necessarily frees the individual from his dependency upon others for the satisfaction of his immediate needs. Thus, the child who has not attained the physical dexterity to welk must depend upon others to secure him a drink of water. When he has attained the general physical ability to walk he may secure it for himself. CA is not a sufficient cause for a person to ascent to the ability to form a group concept. He may attain a CA of 100 and still be totally dependent upon his associates and be unaware of any activity other than that which they do to gratify his needs. Chronological age does not produce social competence in intervals but in an ordinal sequence.

Mental age implies a mental development toward increasing complexity and abstraction. Mental age becomes a means of predicting the degrees of social participation. Mental age is marked by an increasing ability to analyze and synthesize. Of itself it cannot be a sufficient cause for the movement toward a group concept. A person reared inadvertently in a mental institution with no normal social contact might have a mental age of a given level but no social norms or models by which to guide his concept of group formation and functioning.

Social expectations arise from the community of fate in which the individual lives. Exhortations such as "Why don't you act your age?" are indicative of social expectations. Need achievement motivation is closely linked to social expectations. Goldfarb's studies of the effects of institutionalization indicated the effects of minimal, routine, social expectations upon the ability of the individual to relate to groups at large.

Social opportunities also arise in the social setting. These involve opportunities to observe, to imitate and to act. A person learns social roles by observing persons performing those roles. If a person matures in a social setting where he is always a subordinate, there is little opportunity for him to imitate others except in the single role which he plays. Few leaders arise from the ranks of slaves, for instance. Again, a person learns the functioning of the group by acting in it. If a person is never accorded an opportunity to act, he may never perceive how the action is done.

These social opportunities and expectations are necessary but in themselves are not sufficient causes of the development of a group concept. A person may live in the midst of social activity, and possibly even given an opportunity to participate, yet never comprehend more than singular, affectual relationships.

On the following page is a chart which is suggestive of the characteristics of the proposed study.

Group (abstraction)

1. identifiable unit
2. social structure
3. role differentiation
4. communication networks
5. normative action
6. common (shared) interests
7. goal directed behavior
8. continuity

The Problem: How may we account for the movement from aprasia to a group concept?

The Suggested Answer: The individual draws from funds of necessary components and thus ascends. These components are:

CA - chronological age

MA - mental age

SE - social expectations

SO - social opportunities

No one of these is sufficient in itself

Aprasia (sensory)

1. singular identifications
2. non-structured behavior
3. little role differentiation
4. minimal communication
5. norms not assessed
6. egocentric
7. need-satisfaction centered
8. singular action sufficiency

IV. Suggested Hypotheses and Expectations:

1. There will be a significantly greater incidence and degree of aprasia among retardates than among normal children of the same chronological age. If this is true, the group concept of the retardate may be described in terms of less abstraction than the concept of the normal person.

2. There will be little or no difference between retardates and normal children in the degree of aprasia when mental age is the defining factor.

3. There will be a significantly greater degree of aprasia among institutionalized persons than among those in a family setting when these two variables are used to examine comparable groups.

Extrapolating from the above, if the hypotheses are correct, the following statement should be substantiated: the ability to form adequate group concepts is related to intelligence and to the early socialization of the individual.

4. The basis of group activity perceived by the retardate will tend to be affectual. The basis of group activity perceived by the normal person of the same chronological age will tend to be utilitarian. This suggests that affectual and utilitarian are contrary types. If this is true, it will be suggested that the retardate is motivated by egocentric, moment by moment gratification the normal person abstracts to utilitarian ends.

Extrapolating from the above four hypotheses, if the hypotheses are correct, the following similarities and/or differences should be found to exist in relation to the initial list of group characteristics.

1. The more abstract the group concept the more readily the person will use identifying terminology or symbols for groups under study.

2. The more abstract the group concept the more carefully structured will the group situation be described.

3. The more abstract the group concept the more roles will be described in a given situation.

4. The more abstract the group concept the more reciprocal reactions will be indicated among the actors.

5. The more abstract the group concept the more carefully will norms be described for the participants.

6. The more abstract the group concept the more common interests and values will be expressed.

7. The more abstract the concept of the group the more goal directed group activity will become.

8. The more abstract the group concept the more stable or permanent will the group activity seem to be.

METHOD

I. The Subjects. The following criteria were established to operationalize the testing of the hypotheses.

1. The subjects should represent both the family setting and the institutional setting.

2. Subjects should be secured from distributions of both normal and mentally retarded children.

3. To allow for comparisons and to measure differences, there should be an established relationship between mental age and chronological age. This was accomplished as follows: retardates with a mean chronological age of 12 and an intelligence quotient in the 50-65 range (thus implying a mental age of 6 to 7) were selected. To match the mental age factor of the retardates, children of normal intelligence who had a mean chronological age of 6 were selected. To match with the chronological age of the retardates, children of normal intelligence who had attained the mean chronological age of 12 were selected.

4. All subjects should be males to eliminate sex differences.

When these criteria were met, the following six-celled research design was devised. It may be arranged and coded thusly:

	Ability		
	Normal with Mental Age of Six	Normal with Mental Age of Twelve	Retardate
Family Setting	N6-F	N12-F	R-F
Institutional Setting	N6-I	N12-I	R-I

Twenty males were chosen to populate each cell of the design. Their detailed descriptions are shown in the following table.

Table 1: Description of the 120 Subjects Populating the Research Design.

Category	Number	Source	Mean Age	Mean I.Q.
N6-F	20	Enid, Oklahoma Public School	6.5	104
N6-I	8	Baptist Children's Home		
	6	St. Joseph's Home		
	6	American Legion Home School	6.5	100*
N12-F	20	Enid, Oklahoma Public School	11.6	107.9
N12-I	12	Baptist Children's Home		
	8	American Legion Home School	12.1	100*
R-F	17	Enid, Oklahoma Public School		
	3	Enid State School**	11.9	66.25
R-I	20	Enid State School	12.5	59.25

Note: *Precise I.Q. scores were not available from the records at the homes. The discretion of the administrators in choosing normal children from their first hand experience with the subjects was relied upon. The arbitrary norm is posited.

**The seventeen students listed represents the total population of the Enid Public School Special Education classes; the three additional subjects chosen to fill the cell were from children newly admitted to Enid State School who previous to their admission had been living continuously with families.

There were some important considerations in the choice of these particular subjects. Total populations of residents at the Baptist Children's Home, St. Joseph's Home, American Legion Home School, and Enid Public School Special Education Section were utilized in filling the respective categories listed above. Mr. Ray Farrent, Assistant Superintendent of Enid Public Schools suggested that the normal boys be chosen from students enrolled in the largest Enid grade school, Adams Elementary School. The selection was made by the Principal, Mrs. Boyd Lizar, who took the age and I.Q. criteria as a median point and selected students from respective classes who fitted these two criteria the most closely. The retardates at Enid State School were selected in a similar manner under the direction of Mr. Tim Ferguson, Assistant Administrator and Director of Social Services. Children there were chosen who most closely fitted the criteria of age and intelligence. This type of selection of subjects[1] has sometimes been called availability sampling, judgement sampling, or purposive sampling (30).

II. Test Assumptions, - General. When children are to be tested it is expected that they will have short attention spans. It was necessary, therefore, to make the interviews short and distinctly segmented into a series of brief intervals. Attention can be held if the child feels that he is a part of a play situation. Tangible rewards may help gain compliance and attention. These assumptions have been faced by persons examing comparable groups under similar circumstances. Hsu (20) used only two T.A.T. protocols and felt they had yielded valid results. Sarason[2] said that interest can be maintained among retardates by using projective type tests. DeFleur (3) reported the use of tangible rewards (bright, new pennies) as aids in eliciting response from children. These criteria are inherent in all the instruments designed to test the proposed hypotheses.

III. Test Assumptions, - Specific. The design for the tests for apraxia in children was based upon certain assumptions. The chronological and mental age levels of the children to be tested necessitated certain considerations. First, any type of testing had to be within the possible experience of all the children of the age and mental levels to be tested. Second, the problems posed and the questions asked had to be well within the mental comprehension range of the children being tested. Third, the demand for response had to be within the expressive ability range of the subjects. Fourth, immediate reward for attempt and/or achievement provided added incentive for achievement among children faced with problem solving tasks. The first three assumptions were met in the play-like, true-to-life settings of the tests. The fourth was met by the interviewers as they administered the protocols.

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[1] See reference citation, pp. 344-346 for a full discussion of the necessities and the limitations of these types of sampling.

[2] Sarason used these with both retarded boys and retarded girls. see bibliography references under appropriate articles.

In the course of his life, a child has opportunity to experience group life in action functioning all about him. It is not carefully differentiated for him nor is it deliberately taught him; it is the hurly burly of teeming social life. For most children the earliest group contact is participation in the family. Gerald Handel (17) said: ". . . a child is socialized first, not into a large common social world but into a particular family which only partly and sometimes quite inadequately represents the general society."[3] It is in the family where the child first means something to others. Some children, however, may have minimal or no family participation experience. This problem was met in the research design by allowing for comparisons of children who had lived in an institutional context and knew family life only symbolically. One area of testing, therefore, was to ascertain the respondents' awareness of group characteristics as they were manifest in a family setting.

A second area of life where the child has early group experiences is in play situations. Here the child may develop his symbolic imagination. As the child associates with other children in play experiences, he comes to feel the limitations upon his own behavior made necessary by the conduct of others activated by the norms of the situation. As Bettelheim has said (5): ". . . to play with someone means we must recognize second person and that both of us can make ourselves enough like each other to engage in common interaction." Complexity is to be measured by the number of persons integrated into the play situation. There are formal games of increasing complexity where group awareness and participation as a member of a group become increasingly necessary for the successful completion of the game. The second area of testing, therefore, was concerned with the group concepts the subjects had in relation to play situations.

Work situations comprise the third area of life where the child may experience group life. He lives in a world at work. Many of the significant adults he knows are at work all about him. He may spend time thinking and acting out in play some type of work he might like to do. Erik Erikson (25) described the importance of the development of an awareness of the work world in the growing child. His play activity often centers in some type of work situation; i.e., playing with farm animals and tools, running a gasoline station, playing at working in a grocery store. The third area of testing, therefore, was to probe for the children's concepts of people in groups in work situations.

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[3] See also Ibid. pp. 104, 105 and similar comments by Oscar Lewis in American Journal of Sociology, vol. 55 (1950), pp. 468-475.

The school is the fourth area of inquiry. Each child to be tested had some personal contact with and participation in a school. The school is a functioning bureaucracy and may well provide the child's initial first-hand experience with bureaucratic structure. The study of the child's concepts of the school are indicative of his comprehension of a highly formalized social structure (14). The fourth area of testing, therefore, was to ascertain the child's concept of his school and his place in its structure.

These four areas of study (family, play, work, school) comprise much of the institutional life of society. To ascertain what the child's concepts of group life in these four areas describes much of the child's group orientation to this world.

When a person faces a family, play, work, or school situation, he may contemplate its functioning in one of two ways, - analytically or synthetically. Analysis is the ability to take apart a complex organism or organized entity for the purpose of understanding the relatedness of the parts. This dissection may be done physically or symbolically by verbal description. Social analysis is the ability to understand how social objects stand in relation to one another in an interactive situation. Analysis is a prerequisite for meaningful participation by a social object. It is by analysis that he learns the roles of other persons, anticipates them and his relation to them, and integrates himself into the social system. This integration may be on a play basis as the child thrusts himself by imagination into some position. It may be on a real life basis as the child diligently seeks to take a significant role with some degree of interpersonal competence in some group endeavor. In either case the actor's competence rests upon his analytical ability. In the testing situation there was an attempt to ascertain the degree of the children's ability to analyze activity in family, play, work and school situations.

Synthesis is the ability to assemble components into a complex functioning entity. It requires a considerable degree of abstraction for the synthesizer must see the components not only in their individual roles but also in their relation to others. Social synthesis is the ability to anticipate how individual social objects could stand in relation to one another in an interactive situation.

Social synthesis is a prerequisite for the solution of problems whose only answers or whose most efficient answers require collective behavior. Therefore, the testing situation included a serious attempt to ascertain the degree of the subject's powers to synthesize group activity among social objects in the four categories under consideration, - family, play, work and school situations.

It was hypothesized that the basis of group activity perceived by the retardate will tend to be affectual or expressive; the basis of group activity perceived by the normal person of the same chronological age will tend to be instrumental or utilitarian. One theoretical framework for ascertaining the dichotomous expressive-instrumental choice was found in the pattern variable model devised by Talcott Parsons (32). One area of the testing was concerned with posing situations where the respondents' choices may clearly indicated and the degree of expressive or instrumental choice derived.

One unobtrusive measure had bearing in the interpretation of the data (41). The frequency of superhuman reference was carefully noted. Such superhuman effort was unreal in contrast to group action which was the more realistic solution to the problem. For instance, if it is necessary to place a log on a wagon to think that a man would become superman momentarily is unreal; to think of him enlisting the aid of persons nearby may be a realistic solution to the problem.

Table 2: DESIGN FOR THE STUDY OF GROUP LIFE EXPERIENCES

SETTING	ANALYSIS	SYNTHESIS	UNOBTRUSIVE MEASURES	EXPRESSIVE-INSTRUMENTAL DICHOTOMY
1. Family	A. Play situation with family in a house. Probing questions regarding role and function.	B. Using play figures to elicit plans for family picnic from respondent.	C. Superhuman reference	
2. Play	A. Picture of crowd at a baseball game. Probing questions regarding obvious group traits.	B. Using figures of children ask respondent to demonstrate a game he likes to play.	C. Superhuman reference	
3. Work	A. Use a model gasoline station complete with scale size figures and automobiles.	B. Use livestock, a truck and human figures to solve a work problem.	C. Superhuman reference	
4. School	A. Use of formal questionnaire to ascertain the bureaucratic concepts.	B. Use paper, crayons and possibly human figures to depict relationships.	C. Superhuman reference	D. School scenes to elicit dichotomous responses using the pattern variable model.

Table 3: Letter and Number Coding of Data.

I. The Family
  A. Analysis
  B. Synthesis
  C. Unobtrusive measure

II. Play
  A. Analysis
  B. Synthesis
  C. Unobtrusive measure

III. Work
  A. Analysis
  B. Synthesis
  C. Unobtrusive measure

IV. School
  A. Analysis
  B. Synthesis
  C. Unobtrusive measure
  D. Expressive-Instrumental Orientation
    (1) self-oriented -- collectivity-oriented
    (2) universalism -- particularism
    (3) affectivity -- affective neutrality
    (4) ascription -- achievement
    (5) diffusion -- specificity

Specific testing areas were designated by code numbers and letters. Thus, testing area 2-B denoted a reference to date relevant to the synthesis study of the play situation.

The general and specific explication of the testing areas are included in Appendix A. Pictures of the test sets are included in Appendix B. Pictures for the Pattern Variable Model are in Appendix C.

IV. Pre-Testing the Instruments. The research instruments as described were pre-tested in three stages. First, some of the elements were tested by two senior sociology students who were preparing research papers for course work, - Mr. Duane McNeill and Mrs. Reah Shaw. Mr. McNeill questioned twenty boys of varying ages regarding the social organization of the institutional church. His results demonstrated the effectiveness of the techniques and gave some guidelines as to the level of the questions and the areas of best probable response in regard to social organization. Mrs. Shaw's report dealt specifically with analysis and synthesis of work situations. It, too, was administered to boys of elementary school age. It provided guide lines for expectations in the specific area of work.

The second stage of the pre-testing was done by the author when tentative outlines of the judgemental criteria and the outlines of the narratives were completed. Four boys were tested at Glenwood Elementary School, a grade school somewhat removed from where the subjects were to be drawn. Their replies were tape recorded. The interviews were conducted by the author in the presence of the two young women who had been chosen to be interviewers. The tapes were carefully audited several times following the interviews. As a result of these tests, the narratives were substantially changed, a set of probe questions was formed and the final arrangement of items in the various play sets was established.

The third stage of the pre-testing was done by the interviewers. They chose subjects who were not related to the proposed testing areas and administered the tests in the presence of one another. They scored the respondents individually and then compared scores on individual items as a means of becoming acquainted with the protocols, becoming proficient in their use, and bringing uniformity into their scoring techniques. The third stage resulted in the interviewers approaching a high level of reliability in interpretation and scoring.

V. The Interviewers. The interviewers were two young women who were majoring in sociology at Phillips University. Miss Susan Jacobs was a senior at the time of the interview; Miss Pat Hough was a junior. Both ranked in the upper ten per cent of their classes.[4] Each received ten hours of instruction concerning the purpose of the study, the theoretical background of the design, and the expectations of the design itself. Both witnessed the second stage of the pre-testing. Each interviewer was responsible for interviewing sixty subjects. They did their interviewing in the time span between March 1, 1967 and June 3, 1967.

VI. Specific Techniques of the Interview Situation. First, a testing sequence was set. Every attempt was made to administer the tests so that cues from one section would not necessarily carry over into the following section. For instance: the child was first asked what game he like to play (Test area 2-B) before he was asked to analyze a baseball game (Test area 2-A). The testing sequence was as follows:

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[4] Joseph Masling (27) discussed the influence of the sex of the examiner upon the subject and concluded that the evidence in favor of or in opposition to this in inconclusive. See citation, especially pp. 129 ff.

1. Get information for the face sheet.
2. Ask about the pattern variable model (4-D).
3. School analysis questionnaire (4-A).
4. School synthesis (4-B).
5. Play synthesis (2-B).
6. Play analysis (2-A).
7. Family analysis (1-A).
8. Family synthesis (1-B).
9. Work synthesis (3-B).
10. Work analysis (3-A).

Second, all interviews were held in familiar surroundings at times when the subjects were not being deprived of some more desired activity. School children living with their families were interviewed during school hours in the school buildings. Children living in institutions were interviewed at the institutions in the rooms customarily used for testing. Every effort was made to make the testing situation warm, congenial and acceptable.

Third, all interviews were tape recorded in full by the use of a wireless microphone and hidden recorder. The pre-tests indicated that when the recorder and microphone were both present before the respondent they proved to be distracting throughout the interview. When only the small wireless microphone was present, the respondent seemed distracted by it no more than one or two minutes. This was the amount of time required to elicit the factual information to be found on the face sheet and caused minimum distraction during the probing part of the interview. Each subject was told the interview was being tape recorded. The interviewers carefully audited each tape after the interview to be sure that scorings that had been made during the interview could be justified and to complete the scoring record. Greater objectivity and reliability in data recording resulted from this device. The tapes also provided a means of checking the progress and competency of the interviewers. They remain a permanent record.

VII. Evaluation of the Interview Data by Interviewers. Each interviewer was provided with a rating sheet specifically designed for the particular test area.[5] These rating sheets provided for three kinds of evaluations. First, a place to mark whether the subject responded in the given area. Second, comments regarding replies such as number and descriptions of roles mentioned. Third, a place to rate each of the eight group characteristic variables on a five-point scale of competence. A score of 1 in an area indicated a high degree of competence indicated by the reply; a score of 5 in an area was indicative of very poor or non-existent competence in the given area. This was the method of quantification. Experience with scored results on the pre-tests indicated that the the interviewers reached a high degree of similarity in judging competence. These quantified scores provided the basis for statistical analysis.

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[5] Copies of the rating sheets are Appendix D.

Summary

This chapter has described the methodology of securing the data desired. Suitable subjects were chosen. Test assumptions were explicated. The pre-testing procedure was carefully delineated. The interviewers who gathered the information were described and their qualifications for administering this particular interview shown. The techniques used in eliciting answers as near the criterion of the data once collected were discussed.

THE FINDINGS

The data were collected and tabulated so that they would yield to appropriate types of statistical analysis. The tabulations were made by the secretary and were checked for accuracy of content by the author. Each step in the computations was accomplished with the full assistance and collaboration of the consultant, Dr. Kenneth Sorey. Most of the computations were made twice to check for the accuracy of the use of the formulas and the array of scores.

The initial statistical measure to be applied was the analysis of variance for multiple classifications. The rating tables of responses had been deliberately designed to produce results amenable to this type of analysis. It was felt that the data could be legitimately analyzed by analysis of variance within the assumption tolerance as stated by Wert and others (42). Large areas containing sources of significant variance were disclosed by the analysis of variance technique.

This initial test indicated the relevance of the data to the underlying hypotheses in a general way. Other methods of statistical analysis were then applied to the data to find in particular the degree to which the hypotheses could be substantiated.

I. The Analysis of Variance for Multiple Classification:

Table 4: The Results of an Analysis of Variance of the Settings, the Abilities and the Situational Variables in the Summations of Group Concepts (a 2 x 3 x 8 design).

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F	Level of Confidence
*A-Setting	1	1006.55	1006.55	38.48	.001
**B Ability	2	19134.83	9567.42	365.73	.001
***C Situation	7	2666.42	380.92	14.96	.01
Interaction AxB	2	120.33	60.17	2.30	N.S.
Interaction AxC	7	300.54	42.93	1.64	N.S.
Interaction BxC	14	2236.48	159.75	6.11	.01
Interaction AxBxC	14	300.00	21.43		
Within	912	23859.7	26.16		
Total		49624.85			

* A-Setting included family and institutional settings.

** B Ability included normal six-year-olds, normal twelve-year-olds and retardates.

*** C Situation included the following situational variables: home analysis, home synthesis, play analysis, play synthesis, work analysis, work synthesis, school analysis and school synthesis.

Table 5: Means and Standard Deviations for Subgroups Within the Major Variables of Setting and Ability.

Group	Mean	Standard Deviation	N
Setting			
Family	18.38	7.32	480
Institutional	20.42	6.90	480
Ability			
Six-year-olds	22.946	5.610	320
Twelve-year-olds	13.093	4.041	320
Retardates	22.162	6.876	320
Ability and Setting			
N6-F	21.49	6.520	160
N12-F	11.86	3.088	160
R-F	21.78	6.710	160
N6-I	24.11	5.480	160
N12-I	14.33	4.470	160
R-I	22.83	6.010	160
Total	19.40	7.180	960

There are certain null hypotheses implicit in an analysis of variance. Findings in regard to the null hypotheses as indicated in Table 4 are:

1. There is sufficient evidence at the .01 level of confidence to reject the null hypothesis that there is no significant variance

between the family setting and the institutional setting in the summations of group concepts.

Therefore, it may be posited that there is significant variance between the family setting and the institutional setting in the summations of groups.

2. There is sufficient evidence at the .01 level of confidence to reject the null hypothesis that there is no significant variance among normal six-year-olds, normal twelve-year-olds and retardates in the summations of group concepts.

Therefore, it may be posited that there is significant variance among normal six-year-olds, normal twelve-year-olds and retardates in the summations of group concepts.

3. There is sufficient evidence at the .01 level of confidence to reject the null hypothesis that there is no significant variance among the situational variables in the summations of group concepts.

Therefore, it may be posited that there is significant variance among the situational variables in the summation of group concepts.

4. There is not sufficient evidence at the .05 level of confidence to reject the null hypothesis that there is no significant variance in the interactions between family and institutional settings and normal six-year-olds, normal twelve-year-olds and retardates in the summations of group concepts.

5. There is not sufficient evidence at the .05 level of confidence to reject the null hypothesis that there is no significant variance in the interactions between family setting and institutional setting and the situational variables in the summations of group concepts.

6. There is sufficient evidence at the .01 level of confidence to reject the null hypothesis that there is no significant variance in the interactions between normal six-year-olds, normal twelve-year-olds and the situational variables in the summations of group concepts.

Therefore, it may be posited that there is significant variance in the interactions among normal six-year-olds, normal twelve-year-olds and retardates and the situational variables in the summations of the group concepts.

7. There is sufficient evidence to accept the null hypothesis that there is no significant variance in the interactions among family setting and institutional setting, normal six-year-olds,

normal twelve-year-olds and retardates, and the situational variables in the summations of group concepts.

Each source of variance which yielded a critical F was partitioned into its component parts and the variance of each component successively removed to isolate the specific sources of variance which contributed most to the critical F. These areas were then subjected to Fisher's "t" tests. The results are summarized in the following table.

Table 6: The Results of "t" Test Analysis of Specific Sources of Variance Which Contributed Most to the Critical F Scores in the Analysis of Variance of the Settings, the Abilities, and the Situational Variables in the Summations of Group Concepts. (.05 - 2.093; .01 - 2.861; .001 - 3.883)

	Component description		"t" Score	Lev. Conf.
1.	School analysis between N6 and N12	Family	3.690	.01
2.	School analysis between N6 and N12	Institution	4.380	.001
3.	Work synthesis between N12 and R	Family	7.553	.001
4.	Work synthesis between N12 and R	Institution	8.210	.001
5.	School synthesis between N6 and N12	Family	2.908	.01
6.	School synthesis between N6 and N12	Institution	4.271	.001
7.	Work synthesis and work analysis N6	Family	3.248	.01
8.	Work synthesis and work analysis N6	Institution	.619	N.S.
9.	Work synthesis and work analysis N12	Family	3.076	.01
10.	Work synthesis and work analysis N12	Institution	.406	N.S.
11.	Work synthesis and work analysis R	Family	.997	N.S.
12.	Work synthesis and work analysis R	Institution	4.858	.001
13.	Analysis between family and work N6	Family	.185	N.S.
14.	Analysis between family and work N6	Institution	.613	N.S.
15.	Analysis between family and work N12	Family	2.1711	.05
16.	Analysis between family and work N12	Institution	1.842	N.S.
17.	Analysis between family and work R	Family	.294	N.S.
18.	Analysis between family and work R	Institution	1.961	N.S.

Each source of variance which yielded a critical "t" was partitioned into its eight contributing parts. Each of these parts was examined by Fisher's "t" test for difference between uncorrelated means in two samples of equal size (15). Results are summarized in the following table.

Table 7: The Results of "t" Test Analysis of Specific Sources of Variance Which Contributed Most to the Components of the Research Design Previously Indicated by Significant "t" Scores in Table 6. (.05 - 2.093; .01 - 2.861; .001 - 3.833)

	Contributing Parts		
1	Identifiable Unit	.8653	N.S.
	Structure	13.1386	.001
	Role	6.7049	.001
	Reciprocal Relations	3.8781	.01
	Normative Behavior	4.0010	.001
	Common Interests	4.1608	.001
	Common Goals	.4111	N.S.
	Continuity	.8952	N.S.
2	Identifiable Unit	3.5998	.01
	Structure	3.8639	.01
	Role	1.5919	N.S.
	Reciprocal Relations	3.1305	.01
	Normative Behavior	3.0030	.01
	Common Interests	6.8930	.001
	Common Goals	3.7583	.01
	Continuity	1.8534	N.S.
3	Identifiable Unit	8.8963	.001
	Structure	3.9180	.001
	Role	5.3067	.001
	Reciprocal Relations	2.8969	.01
	Normative Behavior	3.5278	.01
	Common Interests	3.5699	.01
	Common Goals	3.4406	.01
	Continuity	2.9056	.01
4	Identifiable Unit	9.9877	.001
	Structure	6.0803	.001
	Role	3.2638	.01
	Reciprocal Relations	1.8266	N.S.
	Normative Behavior	1.2514	N.S.
	Common Interests	4.0393	.001
	Common Goals	3.4275	.01
	Continuity	3.6825	.01

5	Identifiable Unit	7.1704	.001
	Structure	5.1781	.001
	Role	5.4479	.001
	Reciprocal Relations	4.7032	.001
	Normative Behavior	5.3990	.001
	Common Interests	5.2580	.001
	Common Goals	9.7276	.001
	Continuity	5.4815	.001
6	Identifiable Unit	5.6059	.001
	Structure	3.1077	.01
	Role	.5875	N.S.
	Reciprocal Relations	1.9130	N.S.
	Normative Behavior	2.4710	.05
	Common Interests	6.5033	.001
	Common Goals	8.3476	.001
	Continuity	3.4502	.01
7	Identifiable Unit	4.4812	.001
	Structure	.8064	N.S.
	Role	2.4668	.05
	Reciprocal Relations	6.0402	.001
	Normative Behavior	3.8384	.01
	Common Interests	2.3659	.05
	Common Goals	1.4168	N.S.
	Continuity	5.2500	.001
9	Identifiable Unit	.4909	N.S.
	Structure	.2194	N.S.
	Role	4.0167	.001
	Reciprocal Relations	1.4540	N.S.
	Normative Behavior	2.4882	.05
	Common Interests	1.6031	N.S.
	Common Goals	------	N.S.
	Continuity	1.9920	N.S.
12	Identifiable Unit	2.8124	.01
	Structure	1.8266	N.S.
	Role	5.1114	.001
	Reciprocal Relations	.6326	N.S.
	Normative Behavior	1.6815	N.S.
	Common Interests	2.4601	.05
	Common Goals	.0952	N.S.
	Continuity	4.5528	.001

15	Identifiable Unit	2.2390	.05
	Structure	.6457	N.S.
	Role	4.1104	.001
	Reciprocal Relations	1.4540	N.S.
	Normative Behavior	2.3268	.05
	Common Interests	1.1768	N.S.
	Common Goals	------	N.S.
	Continuity	1.2544	N.S.

These sources of variance, listed in precise detail, were collapsed into a summary analysis for ease of reference and comparison.

Table 8: Summary of "t" Test Analysis of Specific Sources of Variance Which Contributed Most to the Components of the Research Design Previously Indicated by Significant "t" Scores in Table 4 Showing the Number of Times Levels of Confidence Were Achieved.

	Level of Confidence				
Contributing Part	.05	.01	.001	Total	NS
Identifiable Unit	1	2	5	8	2
Structure	0	2	4	6	4
Role	1	1	6	8	2
Reciprocal Relations	0	3	2	5	5
Normative Behavior	3	3	2	8	2
Common Interests	2	1	5	8	2
Common Goals	0	3	2	5	5
Continuity	0	3	3	6	4
Totals	7	18	29	54	26

It will be noted that this final step in the analysis isolates specific group characteristics as rated on individual scoring sheets. This completed the array of the data from the largest general classification to the smallest units of analysis with tests of significance for each level.

Summary of the Analysis of Variance:

The array of the data by this analysis of variance and its concomitant successive removal analyses was considered basic to the inquiry. The areas of significance and their levels of confidence indicated strong supportative empirical evidence for rejecting certain of the implicit null hypotheses. The hypotheses thus posited were directly related to the hypotheses originally set forth to be tested.

II. Aprasia Between Retardates and Normal Children of the Same Chronological Age:

It was hypothesized that there would be a significantly greater incidence and degree of aprasia among retardates than among children of the same chronological age. The analysis of the data shows the evidence for substantiating this hypothesis.

1. In the analysis of variance (Table 4) the Ability variable had an F number of 365.73. This is a level of confidence beyond .001. It should be noted that the variance accounted for by this variable as indicated by the sum of squares (19134.83) is near the sum of squares for within (23859.70). Such a high F number and the close relationship of a variable and the within scores indicated that there was very strong support for the hypothesis which has ability as the basis of its statement.

2. When the source of variance was partitioned into its component parts and the sources of variation successively removed, the areas relating to the contrast between retardates and normal children of the same chronological age were subjected to analysis to ascertain the "t" score level of significance. The results are shown in Table 6, lines 3 and 4. The level of confidence for accepting the differences indicated here are also beyond .001. This supports the hypothesis in particular in addition to what was indicated in general in the analysis of variance table.

3. The extent of the differences between retardates and normal children of the same chronological age was demonstrated in Table 5. When the data for these two groups were grouped, the scores could be summed for each group. Note that the mean score for the normal twelve-year-olds (13.093) differs considerably from the mean score

of the retardates (22.162). It should be remembered that the lower the mean score, the greater the degree of comprehension of the concept of the group. The standard deviation scores of the two groups show that there is more homogeneity among the normal twelve-year-olds. When the mean scores for retardates and normal twelve-year-olds were subtracted (22.162 - 13.069 = 9.069), they were found to be more than one standard deviation apart when measured by the standard deviation for the total (7.18). The comparison of mean scores and standard deviation, therefore, also supports the contention of the first hypothesis.

It is asserted, therefore, from these statistical inferences, that the first hypothesis has been substantiated. There is a significantly greater incidence and degree of aprasia among retardates than among normal children of the same chronological age. The derived proposition may be described in terms of less abstraction than the concept of the normal person at this chronological age level.

III. Aprasia Between Retardates and Normal Children of the Same Mental Age:

It was hypothesized that there would be little or no difference between retardates and normal children in the degree of aprasia when mental age was the defining factor. The analysis of the data shows the evidence for substantiating this hypothesis.

1. When the significant sources of variance as indicated by the analysis of variance, were partitioned into their component parts and the variance of each component successively removed, the results were analyzed by Fisher's "t" test. When this was done, there were no retardate versus normal six-year-old comparisons found to differ significantly within the .05 level of confidence. This was in considerable contrast to the previous comparisons of retardates and twelve-year-olds. The absence of significant comparisons is demonstrated in Table 6.

2. The extent of the likeness between these two groups was shown in Table 5. Comparison of mean scores of retardates (22.162) and normal six-year-olds (22.946) indicates the high degree of likeness in competence in responding to the test situations. The standard deviations of these two groups was also quite similar.

It is asserted, therefore, from these statistical inferences that the hypothesis is substantiated; there is little or no difference between retardates and normal children when mental age was the defining factor.

IV. Aprasia Between Institutionalized Persons and Persons in a Family Setting:

It was hypothesized that there would be a significantly greater degree of aprasia among institutionalized persons than those in a family setting when the variable of setting was the defining factor. The analysis of the data shows the evidence substantiating this hypothesis.

1. In the analysis of variance (Table 4), the variable of Setting had an F number of 38.48 with one degree of freedom. This was found to be statistically significant at the .001 level of confidence. It substantiated the wisdom of examining these two classes of respondents separately and being able to analyze each one. It also indicated that there was strong support in the initial handling of the data for accepting the hypothesis.

2. The examination of the data presented in Table 5 would indicate the degree and the direction of the difference noted above. The total mean score of institutionalized persons (20.42) was higher than the mean score of those persons living in a family setting (18.38). The standard deviation score of the family setting was higher than that of the institutionalized setting (6.9). This would indicate that though the responses of the institutionalized persons were more standardized and thus more homogeneous, yet the mean scores for this group were higher, indicating a lack of skills in comprehending the group concept as measured by the instruments.

3. A further examination of Table 5 demonstrates that when the respondents in both settings were further divided into ability groups with the setting variable considered concomitantly the difference persisted. Normal six-year-olds in a family setting have a mean score of 21.49 while those in an institutional setting have a mean score of 24.11. Normal twelve-year-olds in a family setting have a mean score of 11.86 while those in an institutional setting have a mean score of 14.33. Retarded persons in a family setting have a mean score of 21.78 while those in an institutional setting have a mean score of 22.83. These mean scores were indicative of the range and the direction of the variance previously noted.

It is asserted. therefore, from these statistical inferences, that the third hypothesis has been substantiated. There is a significantly greater degree of aprasia among institutionalized persons than among those in a family setting when the variable of setting was the defining factor. More strongly, this was true not only in general, but also in each particular group according to ability.

Because these three hypotheses were substantiated, the proposition that the ability to form adequate group concepts is related to intelligence and to the early socialization of the individual was likewise substantiated.

V. The Pattern Variable Analysis:

The hypothesis was that there would be significant differences among the groups and settings of the respondents in the number of expressive and instrumental choices made. Certain directions of these differences were posited. The pattern variable model was used as the basis of testing to ascertain the credibility of this hypothesis.

1. The results of the tests were subjected to chi square analysis to ascertain whether differences of responses in the respective cells of the research design were greater than differences attributable to chance. Results obtained indicated a chi square ratio of 11.08 which showed a confidence at the .01 level that such results would not be obtained by chance. Evidently, then, within the results lay some significant differences.

2. The same data were then examined by an analysis of variance so that the source or sources of the differences might be more accurately determined. The following results were derived from a simple two-way design (2 x 3 table).

Table 9: The Results of an Analysis of Variance of the Pattern Variable Area of Testing.

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Square	F	Level of Confidence
Setting	1	.075	.075	.200	N.S.
Groups	2	3.127	1.608	2.347	N.S.
Interactions	2	7.550	3.775	5.511	.01
Within sets	114	78.150	.685		
Total	119	88.992			

Null Hypothese implicit in the above analysis:

1. There is no significant difference in the variance between the family setting and the institutional setting in the pattern variable model.

2. There is no significant difference in the variance among normal six-year-olds, normal twelve-year-olds and retardates (group variations) in the pattern variable model.

3. There is no significant difference in the variance in the interactions between groups and setting (normal six-year-olds, normal twelve-year-olds and retardates and family and institutional settings) in the pattern variable model.

Findings regarding the null hypotheses as indicated in Table 9:

1. There is not sufficient evidence at the .05 level of confidence to reject the null hypothesis that there is no significant variance between family setting and institutional setting in the pattern variable model.

2. Although the evidence is approaching the .05 level of confidence, there is not sufficient evidence at the .05 level of confidence to reject the null hypothesis that there is no significant variance among normal six-year-olds, normal twelve-year-olds and retardates (groups variations) in the pattern variable model.

3. There is sufficient evidence at the .01 level of confidence to reject the null hypothesis that there is no significant variance in the interactions between groups and setting in the pattern variable model.

Therefore, it may be posited that there is significant variance in the interactions between groups and setting at the .01 level of confidence in the pattern variable model.

The sources of the variance for interactions were successively removed by using the analysis of the interactions sum of squares (15). First, variance attributable to groups was removed. Then variance attributable to setting was removed. The residual represented the variance accounted for specifically by interactions. These were subjected to observation and analysis by "t" tests for significance. The results were:

a. Interactions between normal six-year-olds in the family setting and normal six-year-olds in the institutional setting were not significant.

b. Interactions between normal twelve-year-olds in the family setting and normal twelve-year-olds in the institutional setting were not significant. The "t" score was 1.736; significance at the .05 level requires a "t" of 2.086 or higher.

c. Interactions between retardates in the family setting and retardates in the institutional setting were significant. The "t" score was 2.343; a score of 2.086 or higher was needed to indicate significance at the .05 level.[1]

Table 10. Raw Scores from the Pattern Variable Analysis.

Group	E Self	I Col.	E Part.	I Univ.	E Aff.	I Aff. N.	E Asc.	I Ach.	E Dif.	I Spec.	E Total	I Total
N6-F	2	18	7	13	0	20	20	0	12	8	41	59
N6-I	1	19	9	11	0	20	20	0	15	5	45	55
N12-F	0	20	8	12	4	16	19	1	16	4	47	53
N12-I	1	19	15	5	6	14	18	2	15	5	55	45
R-F	4	16	14	6	3	17	18	2	15	5	54	46
R-I	1	19	2	18	2	18	20	0	15	6	39	61

* Explanation of abbreviations: E - Expressive; I - Instrumental; Col. - Collectivity; Part. - Particular, Univ. - Universal; Aff. - Affective; Aff. N. - Affective-Neutrality; Asc. - Ascription; Ach. - Achievement; Dif. - Diffuse; Spec. - Specificity.

3. One unpredicted result appeared in the tabulation of the data. The institutionalized retardates were strongly instrumental. Sixty-one of a possible one hundred of their total responses were instrumental. This is a greater disparity than for any other classification. Possibly the institutional experience had taught them to be compliant with the rules and the expectations. The strength of the institutional experience was suggested in another comparison of

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[1] The limitations of the significance of partial analysis are discussed at length in Wert, (42), p. 183.

raw scores.[2] In the area of particular-universal choice where the teacher would acknowledge the particular need of the student or she would apply the universal rule of staying in the seat regardless of the particular need of the student, the retardates made two expressive replies and eighteen instrumental replies. Evidently the institutionalized retardates had interiorized the value of rule conformity above the value of expressing personal need.

There is statistical evidence to indicate there are significant differences within the data occuring beyond the .01 level of confidence. The analysis of variance disclosed that these might be attributed to the interactions occuring between groups and settings. The "J" score indicated that these were to be found largely in the differences between retardates in the family setting and retardates in the institutional setting. The examination of the raw score data suggested the strength of the institutional variable as reflected in expressive-instrumental shoices. This was especially true in the area of conformity to established norms and rules. Other differences between the groups of retardates were minimal and explainable by chance.

These conclusions, therefore, indicated that the fourth hypothesis is supported in a tentative way. Its weakness lay in the assumption of homogeneity between retardates in the family setting and retardates in the institutional setting. The hypothesis was supported in general but the indicated directions were not. The hypothesis must be modified, therefore, to allow for strong institutional influences upon the respondents.

To this point, the data have been used to substantiate the four basic hypotheses of the design. These provided the framework upon which the theory of aprasia in children was based. Aprasia was indicated by lower ratings of the individual's group concept in the testing situation. These four hypotheses have been substantiated by the data. The retardate did have a concept of group composition (found to be highly statistically significant). The retardates' concept of the group did vary significantly from the concept of the group held by persons of similar chronological age. The retardates' concept of the group did compare favorably with the concept of the group of normal children of similar mental age. There was significant variation in group concept between children in a family setting and children in an institutional setting. The four factors indicated as necessary but not sufficient causes of the development of group concept as indicated in the research design (mental age, chronological age, social opportunity, and social expectation) are, therefore, demonstrated to be present. The

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2. See Table 10.

instrumental basis of group activity as hypothesized was not strongly established. Need for refinement of this concept was clearly indicated.

VI. Group Characteristic Analysis:

Because the hypotheses were substantiated, the derived propositions were examined individually by various statistical techniques to ascertain the nature and extent of their implications to the findings.

The collection, recording and tabulation of the data were deliberately designed for this type of supplementary analysis. The responses were individually quantified on a scale of one to five[3] for each of the eight group characteristics in each test area. The quantified responses were cross tabulated so it was possible to make multiple comparisons, ascertain median scores, mean scores and standard deviations at all levels of inquiry. Also, the rating sheets contained spaces for recording comments and other information that arose during the interview. This information, too, has been tabulated and was used to enrich or enhance the quantified data.

1. There were several general observations regarding the group characteristic data.

   a. A chi square analysis of the scores made by the persons of differing ability and setting levels indicated the presence of significant differences beyond the .001 level of confidence in each area.

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[3] Recall the scale: one was an excellent response; five was a very poor response. The higher the score, the more poorly the person was rated.

Table 11: Chi Square Scores for Group Characteristic Areas When Separated by Ability and Setting.

Group Characteristic	d f	x^2	Level of Confidence
Unit Analysis	2	219.444	.001
Structure	2	354.684	.001
Role	2	108.990	.001
Reciprocal Relations	2	202.440	.001
Normative Behavior	2	136.107	.001
Common Interests	2	239.968	.001
Common Goals	2	232.196	.001
Continuity	2	450.364	.001

b. Mean scores of responses and standard deviation scores were obtained for each group of respondents.[4] The standard deviations were relatively small thus allowing for meaningful interpretation of differences between means.

c. The normal twelve-year-olds performed much better, as indicated by the lower mean scores, than the normal six-year-olds and the retardates. This difference may be attributed to a combination of chronological age, mental age as well as opportunity for group experience and expression. This is indicated in Table 12.

d. In most of the group characteristic areas, children in the family setting performed better than children of the same mental ability in an institutional setting. The family was evidently the better socializeing agent as measured by the tests. In the total analysis, the family setting mean score was 2.28 and the institutional mean score was 2.53. This is also indicated in Table 12.

e. The retardates who had a mean chronological age of 12.2 years performed much like the normal children whose mean age was [illegible] years. This likeness, despite the age disparity, was attributed to mental age likeness. This too is indicated in Table 12. This likeness is more striking when the means for each ability level are compared with the total mean for each group characteristic. In every instance the normal twelve-year-olds scored better than the mean. In no instance did either the normal six-year-olds or the retardates score better than the mean. There was considerable uniformity among the means scored by the latter group on each of the group characteristic variables.[5]

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[4] See Appendix E for a complete tabulation of these.

f. Groups of respondents for the composite scoring of group characteristics were rank ordered according to the size of the mean scores obtained. Because of the likeness of the standard deviation, this rank order can be assumed to be indicative of ability level of handling the data.[6]

Table 12: Mean Scores and Standard Deviation Scores for Group Characteristics Attained Rank Ordered by Mean Scores.

Group	Mean	Standard Deviation
N12-F	1.476	.970
N12-I	1.779	1.199
N6-F	2.685	1.265
N6-I	2.694	1.357
R-F	2.853	1.567
R-I	2.972	1.339
Total	2.409	1.415

2. Identifiable Unit. The initial group characteristic studied was awareness of the group as an identifiable unit. Units are identified by symbolic representations, - names. The main probing at

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[5] For the exact comparison, the data may be found by comparing ability groups in Table 12 with total means listed in Appendix E.

[6] Se Guilford, (15), pp. 86, 87 for summary of this assumption.

this level of the testing was to ascertain how aware the respondent was of identifiable names and their purposes in society. The mean score for institutionalized retardates (3.63) was nearly one standard deviation (1.37) from the mean for this group variable (2.59). The institutionalized normal six-year-olds scored little better (mean score 3.17, standard deviation 1.37). Retardates and normal six-year-olds scored near the mean for total. The normal twelve-year-olds scored about a standard deviation better than the variable mean (N12-F mean 1.61, standard deviation .963; N12-I mean 1.70, standard deviation 1.03).

The need and the use of identifying names to denominate groups, therefore, is conceptualized to a much higher degree by normal twelve-year-olds who have had both social opportunity and social expectation to use them. This in contrast, was the most pronounced area of variation from the mean for the institutionalized retardates. Because the standard deviations for the institutionalized retardates and the total on the group characteristic are nearly identical (1.37, 1.45), the variation was pronounced and significant.

3. The group characteristic structure was measured by probing for concepts of authority and decision-making. Each ability level scored comparatively better on this variable than on others. The mean of each ability level of respondents for this concept was better than the mean for the total ability level of the respondents.[7] Evidently the need for authority was, comparatively speaking, better conceptualized than some other group characteristics.

4. Role analysis. A general comparison of means among the ability groups manifested a consistent pattern of comparatively greater difficulty on the part of the respondents in handling this concept.[8] A count of the roles mentioned by the respondents was made by the interviewers. This was an attempt to measure the concept of role saturation, - the total number of roles possible to conceptualize in a given situation. Specific areas of role saturation will be discussed later. Total numbers were used for comparison sake for it seemed more realistic than comparing fractions of roles as would be necessary by mean analysis.

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[7] See comparisons in Table 12 and Appendix E.

[8] Compare data in Table 12 and Appendix E.

Table 13: Total Number of Different Roles Mentioned by Respondents.

Unit of Analysis	Total Number
N6-F	477
N6-I	467
N12-F	696
N12-I	574
R-F	528
R-I	455
Normal 6-year-olds	944
Normal 12-year-olds	1270
Retardates	983
Family Setting	1701
Institutional Setting	1496
Total Roles Differentiated	3197

The familiar pattern was evident again. Children in the family setting described more roles than those in the institutional setting. The normal six-year-olds described a total number of roles similar to the total for retardates. The normal twelve-year-olds were dissimilar from the others in the total number of roles described.

5. Reciprocal Relations: This concept refers to communications networks between or among people. Certain assumptions were basic to the inquiry. Choice "a" in the rating schedule (see Appendix C) was a simple, dyadic, one-to-one relationship It was assumed that this was the most elementary interactional relationship possible. Choice "b" was a triadic or three person interaction pattern. It was assumed that this relationship was more

complex and thus indicative of a larger concept of group relationships. Choice "c" was a model of an interaction pattern for interrelationships among several persons. When more than three persons were designated as interacting with all of the others in the group, this was the choice marked. The logic of this inquiry was: choice "a" is the simplest choice possible; choice "b" is more complex than choice "a"; choice "c" is more complex than choice "b". From this were extrapolated complexities of concepts: choice "d" was the authoritarian wheel design. In essence it was a modification of the one-to-one relationship of choice "a". Choice "e" indicated some other type of communications network or a combination of them. There was no observed regularity in this area. N.A. referred to "no answer" and was indicative of the respondent not indicating an interaction pattern.

A comparison of the means, as previously done, indicated a relatively better response recorded on this variable by all except the normal six-year-old in the family setting. Evidently the interviewers perceived good concepts in this area.

Table 14: Number of Communications Networks Indicated Among the Respondents Classified by Groups.

Group	a	b	c	d	e	N.A.
N6-F	36	7	74	9	16	18
N6-I	41	9	74	14	2	20
N12-F	3	20	103	7	25	2
N12-I	8	28	89	6	24	5
R-F	44	9	86	13	2	6
R-I	20	23	74	2	22	19
N6	77	16	148	23	18	38
N12	11	48	192	13	49	7
R	64	32	160	15	24	25
F	83	36	263	29	43	26
I	69	60	237	22	48	44
Totals	152	96	500	51	91	70

Several conclusions were drawn from the array of data in Table 14. The N.A. response indicated an inability to conceptualize and/or express a communications network. Considerably more institutionalized children than those in a family setting made this response. The more complex interaction pattern, choice "c", was most commonly associated with normal twelve-year-olds, as might be expected. Dyadic relationships were much more prominent among the normal six-year-olds and retardates than among the normal twelve-year-olds. The triad was observed as a concept more frequently among normal twelve-year-olds. Aprasia as measured by comprehension of the complexity of interaction patterns was evident among the normal six-year-olds and the retardates.

6. Normative Behavior. This group concept was delineated by

questions that dealt with rules, regulations and enforcement of rules. The respondents scored uniformly more poorly on this variable when compared with the others. In each case the mean score for this variable for a particular group was poorer than the total mean score for the group.[9] The mean score for the total population was poorer on this variable than on any of the others. This would indicate a weakness in the concept of normative behavior as measured by the research instruments.

7. Common Interests. When a group functions, some thread of common interest must unite the participants. The interviewers sought to ascertain the comprehension of this variable by inquiring about the reasons for associations. The comparative scores for respondents showed a comprehension comparable to the mean total scores for the individual groups.

8. Common goals. This group characteristic provides incentive and purpose for shared activity. Comparison of means indicates the general accord of the respondents for purposeful behavior. In each case, the mean for the group on this variable is better than the mean for the total of responses. Purpose or goal, therefore, was present to a stronger degree in the group concept of the children than some of the other group characteristics.

9. Continuity. This was the concept of the enduring quality of the group relationship. It was measured by eliciting responses to questions about the permanency of the various group behaviors. When this concept was measured, the results indicated a fairly strong belief in the continuity of the group activity. The best mean score for the population was in this area. Evidently the permanency of group activity registered more strongly than many other aspects of group concept among the respondents.

10. Summary of Group Characteristics Analysis. The group characteristics were operationalized in various ways to elicit meaningful responses. These responses exhibited strong similarities differing only in degree. Curves showing relationships of the responses to these variables showed a strong, consistent and uniform curvilinear relationship.

VIII. Analysis - Synthesis Findings:

1. The respondents were examined to ascertain their abilities to analyze social situations and to synthesize social situations. Group concept is germane to both, as was indicated in the previous theoretical background. The test areas were designed to show these

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[9] Comparisons made from Table 12 and Appendix E.

two abilities on four levels of social exposure, - home, play, work and school. When the results were tabulated, it was evident that in every instance, the group totals for analysis and synthesis demonstrated greater ability on the part of respondents to analyze social situations than to synthesize them.

Table 15: Group Concept Summaries According to Analysis and Synthesis.

Group	Analysis Average	Synthesis Average	Chi Square	Sig. Level
N6-F	19.72	23.32	32.2	.001
N6-I	23.22	25.02	9.8	.02
N12-F	11.06	12.65	15.0	.01
N12-I	13.56	15.10	19.8	.001
R-F	20.61	22.95	11.4	.01
R-I	21.08	24.76	32.2	.001
Total	18.21	20.63	74.6	.001

Chi square analysis indicated that the differences in the scores between analysis and synthesis were too great to be attributed to chance at the designated levels of confidence. Therefore, it was more difficult to synthesize a social situation than it was to analyze a similar situation.

Family Analysis and Synthesis.

When the respondents were asked regarding family authority and family decision making in the area of family structure, some interesting patterns of family structure emerged.

Table 16: Number of Responses Regarding Family Authority and Family Decision Making.

Group	Authority					Decision Maker				
	Father	Mother	Both	Other	N.A.	Father	Mother	Both	Other	N.A.
N6-F	8	0	9	1	2	4	6	6	1	3
N6-I	8	4	6	0	2	10	5	3	2	0
N12-F	16	1	1	1	1	5	0	14	1	0
N12-I	13	2	2	3	0	6	2	12	0	0
R-F	9	2	7	0	2	3	11	5	1	0
R-I	8	5	2	3	2	12	2	4	2	0

Several generalizations were developed from these tabulated data. The normal twelve-year-olds strongly expressed the norm that the father is the authority figure. By contrast, the same group strongly expressed the near-contradictory norm that family decisions were egalitarian based. The normal six-year-olds and, to a lesser degree, the retardates expressed the egalitarian ideal in authority and quite consistently in the area of family decision making. Institutionalized children responded twenty-eight times that the father was the decision maker; children in the family setting mentioned father as a decision maker twelve times. Perhaps there was some idealistic unreality resulting from a lack of significant group participation in the family that produced thei effect. The family retardates, more than any other group, perceived mother as the decision maker. Intensive care by the mother in the home may have produced this effect. Other than the perception by the family retardate and the normal six-year-old in the family that mother was a decision maker, mother rated fewer favorable responses than father, both as authority figure and decision maker.

Another relevant finding became evident in relation to perception of the family. When the respondents described the family communication networks, thirty-eight of a possible eighty responses of normal six-year-olds and retardates, virtually half, described family relationships on a one-to-one basis (choice "a" in the schedule) in family analysis. In contrast, thirty-six of the eighty responses of the normal twelve-year-olds described the family as an interacting network. The same figures prevailed in family synthesis.

The older, more socially mature child saw himself in a different relationship with the family members.

Play Analysis and Play Synthesis:

The lack of group concept in this area was most apparent in the play communications networks and in the inability of certain ones to establish any meaningful networks. Thirty-one normal six-year-olds perceived a one-to-one relationship among players in a game. No other communication network choice approached the magnitude of this choice. In addition, four of these subjects were unable to describe any meaningful networks. This added credibility to a much earlier statement that young children find it difficult to comprehend games with multiple players. When children of this age level were asked what games they liked most to play they mentioned some form of tag which in essence is on a one-to-one basis. The play network perception patterns of normal twelve-year-olds were much more complex.

Work Analysis and Synthesis:

In work analysis, the subjects showed the greatest consistency in communication network patterns. In all groups the majority of choices was for alternative "c", the complex interaction network. Evidently it was not difficult to see the value of this pattern of communication when many men worked at a single place.

In work synthesis, the results were different. The normal twelve-year-olds organized the onlookers to round up the cattle by using the interaction model network (twenty-nine choices out of forty). The six-year-olds and the retardates seemed at a loss to know what to do as indicated by twenty-three no answers to the problem and by only thirteen choices to use an interaction network to solve the problem. The normal six-year-olds and the retardates solved the problem by a strong authoritarian approach more frequently than by any other choice.

When measured by total rating points, the area of work synthesis showed a greater degree of difficulty and a poorer rating than other areas (mean 22.2 in comparison with mean for play synthesis, the nearest, 21.7). This suggested an area where better group concepts could profitably be developed.

School Analysis and Synthesis:

The school situation is one of the child's first contacts with a functioning bureaucracy. Each child among the respondents had experienced at least seven months of classroom instruction in a formally organized school. This was true even of the institutional retardates for they attended a school staffed by special education certified teachers under the jurisdiction of The Enid Public School System. The test included a play situation that yielded a structured response. A type of sociogram was drawn for each child as he described his own school system.

The communication network most frequently chosen, almost to the exclusion of others (204 choices out of 240), was the interaction network. Evidently most the subjects had observed this pattern of communication and could incorporate it in his own description of the school. Few of the normal six-year-olds and retardates conceptualized a secondary network beyond the principal. Considerably more of normal twelve-year-olds knew of the existence of an order of authority beyond the local school.

VIII. The Unobtrusive Measure:

The unobtrusive measure used was the notation of the times the respondents made use of superhuman strength to accomplish a task a group action could have accomplished. The reasoning supporting this was that the use of superhuman power was an unrealistic approach to a problem. Enlisting the aid of others in concerted group accomplishment was a realistic approach. The only two areas of the research design where such observations were practical were work analysis (cars and men at a filling station) and work synthesis (re-loading escaped cattle). An example of superhuman strength in work analysis was when a respondent placed automobiles by hand rather than moving them as a worker would move automobiles at a garage. An example of superhuman strength in the work synthesis was when a respondent lifted the cattle one by one and threw them bodily into the waiting truck. In the latter case the alternative was to enlist aid of onlookers to help herd the cattle.

Table 17: Superhuman Strength Notations Classified According to Group.

Group	Work Analysis	Work Synthesis	Total
N6-F	11	13	24
N6-I	17	17	34
N12-F	16	4	20
N12-I	10	2	12
R-F	17	12	29
R-I	17	17	34
N6	28	30	58
N12	26	6	32
R	34	29	63
F	44	29	73
I	44	36	80
Totals	88	65	153

Normal six-year-olds and retardates made similar use of the superhuman trait. The incidence of normal twelve-year-olds using it was approximately half of the other two groups. Among the normal twelve-year-olds, the greater bulk of the choices (26 to 6) were made in the work analysis. The normal play response in the analysis situation may have accounted for the disparity since hand positioning may have been partially expected.

The reliability of this measure may be questioned. It was offered not as evidence to substantiate the major hypotheses but as a secondary, observational measure which offers parallel data to the major findings.

The findings of the research effort have been presented. The probability of differences by chance was ascertained in each instance. When the probability that difference would arise by chance at the .05 level or beyond, the data were analyzed and presented.

DISCUSSION

I. Introductory Remarks:

This was an exploratory study for no specific references to similar inquiries were located. In general, the purpose of this exploratory study was to ascertain some of the differences that exist in the concepts of groups held by mentally retarded children and by normal children in both institutional and family social settings. In specific, the purpose of the study was to probe for and measure the extent of the comprehension of eight group characteristics in selected populations of boys in four differing areas of common experience. The basic concept was aprasia, herein defined as perceiving persons as separate entities but not perceiving them in meaningful or significant interaction in group activity.

The underlying assumption was that the human individual begins his conscious life in a condition of aprasia by perceiving persons as separate entities, but moves by enlarging and developing his concepts, toward meaningful and relevant group participation. This movement can be described on an ordinal scale but not on an interval scale of development. This movement was described by measuring the extent of the concept present in persons of varying ability, ascertaining by other means the developmental stages of these persons, and by quantifying the data assessing the comparative levels of aprasia.

II. The Group Characteristics:

1. The identifiable unit. If a person is not aware of the identity of a group, his participation in it, other than on a random basis, is scarcely possible. The most common form of group identification is symbolic representation by a name which both denotes the group and connotes specific indices regarding it. If a person is not aware of the larger designation of the group, he must be aware then of the smaller parts of the group, the individual entities that compose it. From this, it may be inferred that the person who shows little comprehension of a group name or the reason for a group name, perceives the individual entities and thus has a greater degree of aprasia than one who comprehends the meaning and purpose of the symbolic identification. The data supported the assertion that the younger the normal subject, the less his ability to comprehend group identification, thus the greater his degree of aprasia. Mentally retarded subjects were similar to normal six-year-olds in their responses, so their degree of aprasia was

described as similar. The summary cited in Table 3 shows that in eight of the ten areas where the analysis of variance and "t" tests indicated significant variance, the differences in the concept of group identification contributed significantly to the variance.

2. Social structure. This concept refers to lines of authority and responsibility existing in group activity. If a person is not aware of authority and responsibility, he may be affected by it but he will not participate in it other than passively. If a person is not aware of authority in a group or his responsibility toward it, he must relate to some lesser entity than the group itself. The less a person is aware of authority and responsibility patterns, the greater his degree of aprasia. The data indicated that the younger the normal respondent, the less his comprehension of authority and responsibility, hence the greater the degree of aprasia. Data cited in Table 3 show that in six of the ten areas where analysis of variance and "t" tests indicated significant variance, the differences in perception of group structure contributed significantly to the variance.

3. Role behavior. Role behavior refers to expectations of conduct by the group on the individual. Role ambiguity and its resultant frustration can be destructive of group relationships. If a person is to participate meaningfully in group activity, he must be able to take the role of the others and ascertain his own probability of role fit. If he is to involve others in group activity, he must make judgements about the probability of role fit. The number of roles one comprehends is also relevant for this limits his situational alternatives. Therefore, we may infer that the lesser the comprehension of role behavior and/or the fewer roles comprehended, the greater the degree of aprasia. The data substantiated that the younger the normal child, the less his comprehension of role behavior and the fewer roles he perceived. The retardates scored similarly to the younger normals. The summary of data in Table 3 (cited previously) indicated that in eight of the ten areas where analysis of variance and "t" tests indicated significant variance, the concept of role contributed significantly. It was also noted that six of these eight citations were significant at the .001 level of confidence.

4. Reciprocal relations. When persons interact, certain interaction patterns result. The simplest of these is the dyad, a one-to-one relation. The triad is a more complex pattern. The multiple interaction pattern, characteristic of much group behavior, is the most complex. If a person's interaction pattern is consistently dyadic, he may be assumed to be functioning on a simpler level of interaction than one who perceives triadic or multiple relationship. Aprasia, then, is to be associated with dyadic relations. The data manifested differences in interaction patterns

as perceived by the subjects. The younger the normal subjects, the more persistent were dyadic relationships. The retardate responses, characteristically, were similar to the responses of the younger normals and retardates more frequently spoke of games that were basically dyadic (tag was frequently mentioned). Normative behavior concepts significantly accounted for variance in five of the ten major areas of variance as indicated in Table 8. Probably mere practice of interaction relationships in varying situations would not be meaningful to the younger child and the retardate unless careful instruction in the function and purpose are interiorized.

5. Normative Behavior. The rules of the game, the norms of the group, are critical to purposive activity. If a person is not aware of the norms, his actions at best can be but fortuitous. At the worst, they will be disintegrative. The means by which this group characteristic was isolated was by probing for the subject's ideas of rules and regulations and their place in the various group activity. If a person does not comprehend the guidelines for group activity, he can function with the group only by relating himself to someone who does. This is the familiar one-to-one relationship that characterizes aprasia. Therefore, the less one tends to understand norms and their functions, the greater the degree of aprasia. The data supported this inference. The normal six-year-olds and the retardates scored consistently poorer on this variable. In eight of the ten areas where significant variance was found, partial analysis showed that the rating of the concept of normative behavior accounted for a significant portion (See Table 8).

6. Common Interests. These are the threads of personal value and involvement binding the group together. If persons did not exhibit knowledge of these, their concept of the group was incomplete. If personal interest alone prevails then the claim that the awareness of common interests in group activities is less pronounced among younger normal subjects and the retardates. This factor also accounted for significant variance in eight of the ten critical areas (See Table 8). The father of an older retardate (chronological age 26, mental age 8) related his concern at this point. He said that the retarded boy shared few common interests in the family but sought personal gratification. He felt, for instance, that if the mother would be injured in the home, the boy would continue to watch his favorite television show to the end before helping his mother.

7. Common goals. The characteristic of common goals suggests the purposeful nature of group activity. Singularity of purpose, a purpose not to be achieved by individual endeavor, is the guideline. If a person is not able to perceive that several persons working together can accomplish a single effect, he is lacking in

[illegible] to see the group [illegible] the children remained in a [illegible]. The data supported [illegible] readily obvious in the work [illegible] persons but the respondents tended [illegible] to solve the problem alone or with the help of one other [illegible] were present. The persistence [illegible], as measured by unobtrusive means, [illegible] choice to withdrawing aid from others. This may solve a problem in the play situation but in real life when the [illegible] is no longer a possible alternative, frustration [illegible]. A small boy was trying in vain to move a large stone. His father asked why he did not use all his strength. The boy replied that he had. The father quickly answered: "No, you haven't because you haven't asked me to help you." The boy had overlooked social resources of strength.

8. Continuity. [illegible] has more than momentary existence. Temporary they may be in the length of their contiguity but there is the idea that they will exist over time and not for the moment. Existence over time is a more abstract concept than the momentary one. The person who fails to see essence of group continuity perceives his relationships to individual persons as being continuous. Therefore, the less the concept of group continuity, the greater the degree of [illegible]. The data exhibited relevance on this level also. [illegible] was a significant variable accounting for difference in six of the ten critical areas (see Table 3).

9. General summary of group characteristics. There was a definite curvilinear relationship in the variance between groups on these eight variables.[1] The areas where the respondents scored uniformly better in their respective ability levels were structure, common interests, common goals and continuity. Areas where the scoring was uniformly relatively poorer were identifiable units, role, behavior and normative behavior. Therefore, these latter items are the ones indicated by the tests where stronger emphasis should be placed in helping children develop a stronger concept of the group. Techniques of help for children should include both education and meaning of group action.

In a special education class from which some of the respondents were drawn, the children (chronological age 12, mental age 7) had difficulty with learning to count above ten. When provision was made for them to eat in an adjoining school cafeteria rather than from home-packed lunch sacks, they found it necessary to compute

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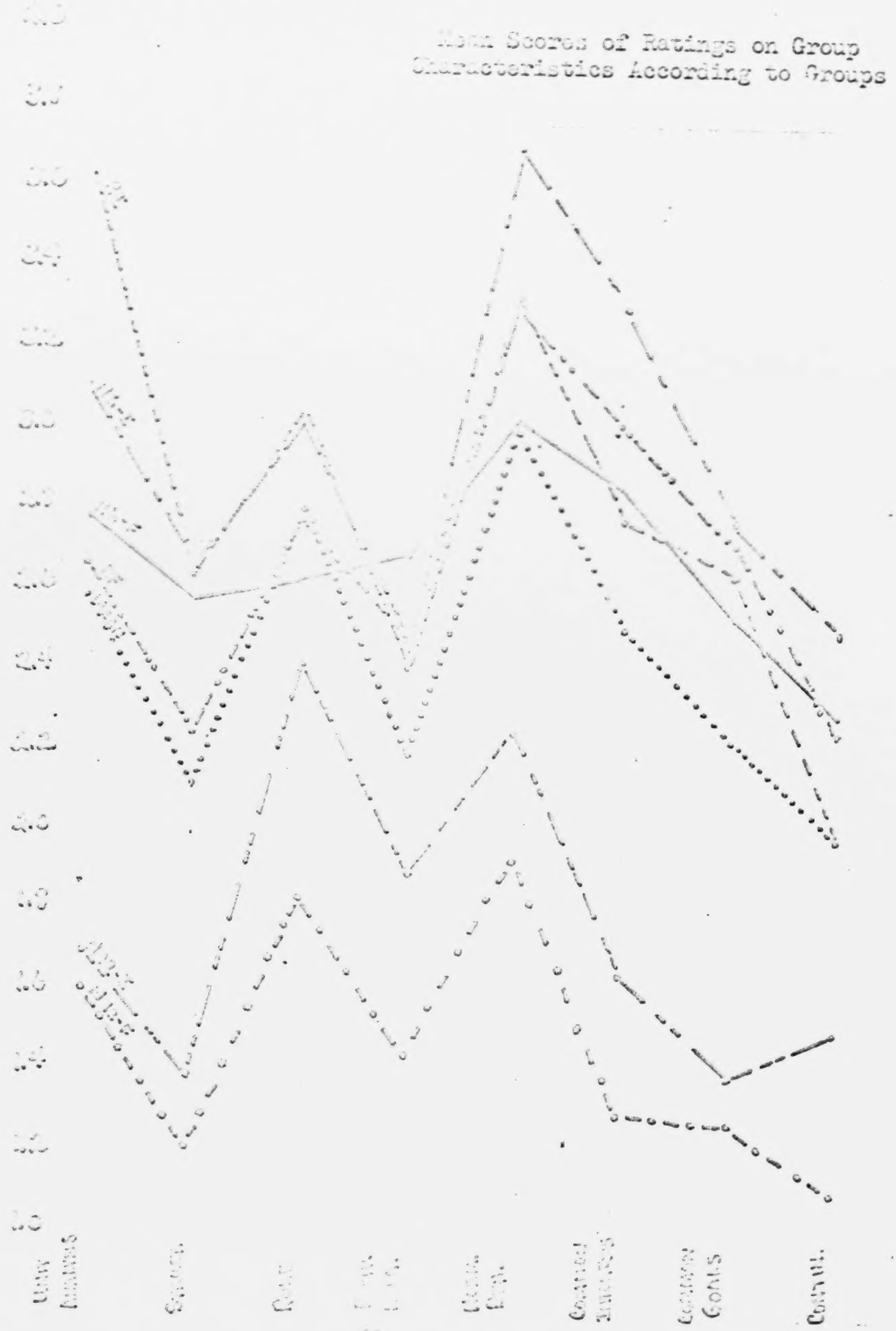
[1] See graph on following page: Mean Scores of Ratings on Group Characteristics According to Group.



Mean Scores of Ratings on Group Characteristics According to Groups [illegible] money. They learned [illegible] Nothing had been [illegible] mechanics. In like manner the techniques for helping children lessen their degree of apraxia must couple meaning and mechanics.

III. The Setting:

The wisdom of testing children in both institutional and family settings was substantiated by the data. Consistently the institutionalized subjects scored more poorly than their peers in the family setting. This has been noted several times in Chapter III, "The Findings." If chronological age and mental age were similar, the differences must be accounted for in the social expectations and/or the social opportunities that institutionalized and family setting children do not share. This institutional bias was not the result of the effects of a single institution. In the population of the institutionalized there were children from a Catholic Home, a Protestant Home, an American Legion Home and the Enid State School, a home operated by the Oklahoma Department of Public Welfare. The consistently poorer showings are, therefore, not a reflection upon a specific situation but upon a system. Consistently and frequently the data indicated that the family was a better socialization agent than the institution. This generalization is in agreement with the findings of Goldfarb (cited in Chapter I). These conclusions but highlight what many institutional administrators acknowledge. These conclusions emphasize the need in institutional settings to enlarge the areas of social opportunity and to accentuate the degree of social expectation.

IV. Analysis and Synthesis:

Analysis is the exercise of the human ability of insight. Synthesis is the exercise of human ability of foresight. As one might expect, it is easier to analyze than to synthesize. The data showed that in each of the four test situations (home, play, work, school) that children of each ability group had greater ability to analyze than to synthesize social situations. To equalize this disparity, greater emphasis could be placed on synthesizing adequate group situations in the educational development of children. It might be expected that this would be a more difficult task for an instructor, too. Dr. Sorey, psychological consultant for this grant project, mentioned that teachers who constantly lecture may themselves have a higher degree of apraxia than teachers who lead group discussions. The lecture is a situational analysis, the discussion, a situational synthesis. The validity of this observation remains to be checked but it is suggestive of the difficulty inherent in structuring synthesis situations for students.

V. Ability Levels:

Sarason's assertion of the testability of mentally retarded persons by projective and expressive means (see references in Chapter I and the Bibliography) was substantiated. The retarded children were responsive. The interviewers established suitable rapport with them. The interviews with the retarded tended to be a little longer. This was due in part to some who had speech impairments, in part to the more deliberative answers of the retardates, and in part to the fascination the retardates had for the toy models used in the testing. Many of the retardates, also, had never heard their own voices from a tape recorder. The interviewers frequently took time at the close of the interview to satisfy this curiosity.

The group concepts of retarded persons was quite similar to those of normal persons with similar mental age. This suggested a close relationship between mental age and the degree of aprasia. This statement is consistent with the citations in the definition of the retardate in Chapter I. The retarded child did have a concept of the group that had not moved very far from aprasia. This handicapped him in his ability to relate to existing groups. As he grows older, his social environment requires stronger and stronger group concepts to enable him to participate on a meaningful level. This research suggests areas of poor comprehension. New techniques of learning about groups and personal relationship to them are definitely indicated.

VI. The Pattern Variable Model:

This part of the research was not as productive of significant data as was hoped. It was possible that the respondents picked up cues and responded not as they would act but as they felt the interviewer wanted them to. If their answers were true and representative, then the theoretical basis of the use of these instruments needs to be re-evaluated. In either case, further research on the use of these protocols is definitely indicated before definitive results can be expected.

CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS[1]

The formation of a group is a social product. Therefore, the concept of the formation of the group is not innate but must arise from social experience and/or an educative process. The group is a most usable concept for much of modern life is lived out in group activity. Because the concept is so useful and because it is so common, the normal adult may overlook or ignore how abstract it is. Because the normal adult has learned to integrate himself into groups, he may be unaware of how little of his activity is comprehensible to children, either his own or others in his care. It is as though the adult should escort a child to a series of formal games which the adult knows but whose rules and actions are vague to the child.

The need, therefore, is to communicate to the child on a conscious level in ways he can comprehend the basis of the group concept which has become a near semi-automatic response in the adult. We know that such communication of near automatic responses is possible with other skills, - hammering, driving, golfing. It should be possible, then to transmit these particular social skills of analyzing and synthesizing groups. The purpose of this conclusion will be to discuss how this can be done.

The four crucial variables of child development should be kept in mind. Nothing can be done to speed or retard chronological age. Some can be done to modify mental age though these are narrow limits. It is in the area of social expectation and social opportunity that growth from aprasia can be aided by educative and directive action. Social expectation is present when significant others, usually adults, are not only permissive but encouraging in efforts to enlist a person for group activity. Social opportunity refers to the chances the person has to participate in social activity. The main thrust of the implications and recommendations will be in these latter two areas.

Another factor should be kept in mind, too. It has long been recognized that socialization by circumstance is more fundamental than socialization by precept. Because a link was noted between mental ability and the degree of aprasia, the kind of experiences for learning one selects should be very concrete rather than vague or symbolic. When people of low mentality exhibit aprasia, it is mandatory that teaching experiences should be cast on levels that such deprived ones can grasp, understand, and transfer to similar situations that will arise. Structured situations with expected responses such as those in the test protocols would be examples. The socio drama that is simultaneously a play situation and thought stimulating lends itself admirably to exercises to help persons move from a state of aprasia.

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[1] Dr. Kenneth Sorey, consulting psychologist, worked in close collaboration with the author to present these conclusions, implications and recommendations. His help was extensive in scope and intensive in perceptive strength.

One of the most important applications of this project is the measurement of the concept of aprasia. By this is meant being able to measure in a reasonably refined way the various dimensions of the concept of groupness. Thus, if we can measure it, we can manipulate it in some way. The following summations are based on this assumption derived from the results of the testing.

I. The Group Characteristics:

A concept has been defined as a constellation of ideas. The concept of group is a constellation of eight ideas referred to in this report as the eight group characteristics. The person's skill in understanding and building groups is measured by the presence and relative strength of these ideas in the mind of the individual. These ideas can arise by observation of group activity. They can be implanted in the mind by structured situations designed to place them deliberately in the perceptive field. The whole theory of teaching is that such deliberative action accentuates and accelerates cognition. There is every reason to suppose that this would be true of the ideas in the concept of the group.

It is recommended, therefore, that teachers, especially teachers of the mentally retarded, know the characteristics of the group and convey the understanding of these in every way possible at every opportunity to the students. The tests indicated that the particular group ideas are not as well understood as others. Efforts should be intensified to develop these:

1. The group is an identifiable unit. It has a name so it may be known and recognized by its own members and by others. This part of the concept was not as well understood by the respondents. The teacher should emphasize the meaning and purpose of names of existing groups that may be analyzed by the class. When groups are synthesized, stress should be laid on establishing meaningful and recognizable names. Discussion of suitable names for groups and decisions upon these names could prove valuable in group synthesis. Children can be led to see what implications of a name can be.

The teacher can use much imagination at his point. Let the children choose names for families, play groups, work groups, school groups. The teacher can show that some names have "good" meanings; others have "bad" meanings. Names can make people laugh or frown, or smile or even cry. Giving a significant name to a group and the search for its implications could be most valuable in teaching the concept of the group as an identifiable unit. Some suggested thought starters: What are the implications for the following names? Family: Mr. and Mrs. John Stink, Tom Roundhead, Sitting Bull. Play or team names: The Pansies, The Tigers, The Sore Toes. Work place names: The No Good Garage, The Snake Hole Motel, Shady Lane Home. School names: Stupid High School, Lovely Grade School, President Johnson School. All of these can teach that a name is more than a name; it is an identification.

Symbolic representation is a human attribute. To teach its purpose and meaning and to help others to give names to groups is to exercise this essential humanity and to help it to develop.

Names of groups are all about. Family names on mailboxes assure mail deliveries. Names of ball teams designate them. Businesses and schools have names to allow identification of persons with them and to mark them off from others. Negative training by using expressions such as "you", "store", "team" to show ambiguity could also be used. Such discussion, so simple to the adult, can become a new and fascinating adventure to a child for whom a name can be a real part of a thing.

2. Structure. Group structure refers to authority. The children in these tests showed a relatively better understanding of structure than some other characteristics. This idea can be reinforced in the mind of the child by many means. A simple exercise is as follows. Ask each child to choose his favorite song. Tell the children that when the teacher gives the signal each child should sing his song so loudly that all will hear it. The cacophony will be deafening. Then have each child lead the group in his favorite song. The structure of leader and followers is dramatically illustrated, the stage is set for discussion of what leaders do and why we have them, and the children will have a good time. Authority can be shown in the home by discussing who makes decisions. The use of a team captain and a coach for a team set the stage for a discussion of structure in play. The work of the boss or owner shows the structure of work. The school bureaucracy arrayed before children indicates the value of authority to keep things moving. In group synthesis, the children can be taught to choose a leader for various activities. Structured socio dramatic settings where children can get practice in leadership can be most helpful.

3. Role. The tests indicated that the children did relatively

poor in their concept of role. The article by Lois DeFleur (8) is highly significant in understanding children's role concepts. A young child may be very limited in role comprehension. He may assign any person to one of a very few roles. Retarded children in an institution frequently refer to all adult males as "Daddy" and all adult females as "Mama". This may be quaint or endearing but it does show stultified role concepts.

Recall the great importance of this idea in group concept. If the child cannot analyze the role requirements of a group situation and estimate his own role fit, he cannot take a meaningful part in the group. If he cannot project suitable role behavior into a problem situation, he cannot develop a suitable social solution. Role playing and learning to take the role of the other are most important to an adequate group concept.

Now, children do a considerable amount of role taking in their play. They pretend to be mother, father, policeman, car driver, teacher. As Sullivan said, they live in "as if" situations frequently. Opportunity for more numerous and frequent role taking in socio drama situations could be afforded. Critical analysis of the adequacy of the play, criticism from peers for the way the role is played, encouragement from a patient and understanding teacher could all enhance the social expectation and social opportunity of enlarging this area of group life.

4. Reciprocal Relations. This part of the group concept refers to the communication patterns. It will be recalled that young children and retardates more frequently established a one-to-one relationship with others. Somehow they failed to see how communication could be more than this. The desired aim is to have persons learn the function of the interactive network (pattern c in the design). Various socio drama possibilities lend themselves to develop this idea. For instance, form a family setting. Try to conduct family life by a series of dyadic relations, - mother speaks to father and he speaks only to her, mother conveys father's wishes to child, etc. Then play the same game where all speak freely with one another. This can be made even more effective by the use of telephones where there is a true one-to-one communication system. Then, have children play family where each one speaks to all others. The same setting can be applied to play, work and school situations. These can be modeled after the many early experiments in group dynamics research. Children can learn values in communication while having fun in doing so.

The teacher can also point out the many existing networks all about. She can show how this works in the school, at work and at play. The illustrations should be concrete and if possible, acted out by the children.

[illegible]. Many children had difficulty at this point. They did not comprehend well why rules and regulations are important to human groups. They did not see well the functions of arbiters of norms in groups (teachers, umpires, coaches). Norms are essential to group activity or else there can be no prediction of human behavior and as a result no prediction of outcome. Without norms, human behavior is reduced to random action and chance outcome. Adults may presume too much when they believe children grasp causal relationships between disliked restrictions and desired outcomes.

Socio drama situations may show how normative behavior functions especially if the purpose, function and desired result are emphasized. In the home setting, the need for rules and norms can be shown in regard to when the family has its meals, when it retires, how it behaves in relation to others in the home. Norms in play can be pointed out when arguments ensue regarding some disputed act. In the work situation, the questions were asked as to when the men came to work and why they did. Careful analysis of work conditions and rules when children visit work sites on field trips or when they enact them in the room. Some of the children did not understand why there were so many rules in their school. A careful enactment of what school would be like if certain rules were suspended (talking out loud any time, eating candy, running in the hall ways) might reinforce the basic rationale of normative behavior.

6. Common interests. The children seemed to have a fairly adequate idea of common interests. They did see that people ban themselves together because of these interests. In socio drama situations, this part of the group concept can be reinforced by emphasizing the overview or overriding purpose of group activity. Small group experiments show that developing common interests can be a way to overcome conflict in groups. This can be done by forming a group to accomplish some purpose germane to the needs of the children. Then, to show how each child contributed something of himself to attain something of value to the whole group.

In the home setting, this could be shown by demonstrating how each one could do an extra task so that all could go on a picnic. At play it can be shown how people give of their time to make a good game for all. The little boy who picks up his marbles, for instance, is a spoil sport. At work the workers, by doing things together, build what never could have been built by one man working alone. The "surround" method of hunting bison used extensively by Plains Indians is a prime example, too. The common interest was so great that severe penalties were imposed upon those who resorted to individual action. In the school setting, the common good of all can be shown in many ways.

[illegible] reflects some of what each one [illegible] the pool of [illegible]. [illegible] life, therefore, is like a pot-luck dinner where each brings what [illegible] all are fed.

7. Goals. The children had relatively less difficulty with this part of group concept than many others. Man is a purposive creature who finds his satisfactions in realizing aims and goals. Group life allows each to attain goals that he could not attain unaided. Situations that demand goals be set and accounted for when attained could reinforce this fact.

8. Continuity. A group lasts beyond the participation of an individual member, for it serves more than individual needs. Most of the children handled this aspect of the group concept relatively better than others. They did see the need of family, play, work and school institutions to continue to serve the needs of participants. Deliberate reinforcement of this part of the concept is suggested, too.

9. Summary of suggestions regarding group characterisitics. There is a test, re-test protocol that could be used repeatedly to measure the degree of concept internalization. Children like to form clubs. They devise secret words, codes, symbols, roles and norms. This behavior is commonly observed in the schoolroom and by parents; it is a normal part of maturing for many children.

When the tests used herein were being formulated, one technique was used in pre-testing. The child was asked to plan how he would start a club. He was then asked what he would do if he were the president of it. This was discarded as a part of the final plan for it seemed too advanced as an open-ended question for six-year-olds. (This finding agrees with Sullivan's findings cited earlier).

One particular event seemed significant, however, Two sisters responded. The younger, who was eight, said she thought clubs were silly. The older sister, who was almost ten sketched seventeen requisites or norms for club activity.

From the pre-test, it is suggested that children who show some knowledge of a child's club could be quizzed from time to time to ascertain how their concept was enlarging. Diligent effort could be made to probe for the understanding a child has of the basic eight dimensions of the group and how these change in a given child over time. This method could be used to ascertain how well a teacher was progressing in the task of inculcating the group concept as suggested earlier.

II. The Findings:

The data clearly indicate that the home is the better agent of socialization. Probably the home affords more social expectation and social opportunity for diverse group activity. Institutional socialization tends to be more standardized (this was indicated by a lower standard deviation for the total of people in the institutional setting than for the total in the family setting; the standard deviation for institutionals was 6.9 while for the family it was 7.32).

Many institutional administrators are painfully aware of this problem. They are torn between the need to maintain a schedule and the desire to individualize response. They are in conflict between the need to establish uniform role relations between custodians and the cared for and the desire to allow for diversity of role play. That they have succeeded in the fulfilling of the need is shown in the pattern variable analysis data. The institutionalized retardates scored significantly higher on the universal alternative in contrast to the particular alternative (See Table 10). They had evidently interiorized the values of rules universally applied.

Creative imagination and lowering of staff-resident ratio seem imperative if the gap between the group concepts of those in a family setting and those in the institutional setting is to be narrowed. Opportunities and expectations for group response must be deliberately sought and put at the disposal of the institutional resident. Play situations seem specifically structured to re-enact significant group activity and could be most valuable.

III. Summary of the Four Areas,- Home, Play, Work and School.

Children often act out all of these areas. Usually, however, one group characteristic is emphasized to the exclusion or minimizing of the others. Role is probably the characteristic most frequently emphasized. For instance, when children play school, the most frequent setting is the teacher-student role interaction. Manifestly, this is good for the emphasis intended. The suggestion is, however, to reinforce all eight of the group characteristics.

This can be done in the home situation by urging that all aspects of group activity be accounted for. At play, various sets can be used to do this. Children can row a boat together, carry a large box together by means of grasping handles, build a wall with large blocks in the Egyptian pyramid style. All of these can clearly emphasize the group characteristics. Work situations involving pulling a loaded wagon, herding animals, building a fence and other similar activities could show the function and reward of cooperative action. Children could visit the principal's office.

Thus, when they play school, they can use the role of principal, janitor, cook, and others realistically. In all of these ways, and many, many others that an imaginative teacher can devise, the child can live in an interpersonal environment of group activity made exciting by the means of a game and made meaningful by overt oversight.

IV. Analysis - Synthesis:

Uniformly, children found it more difficult to put people together in groups to solve a problem than to analyze them thus assembled. This, of course, would have been true if the children had been studying bird houses; it is easier to take a bird house apart than to put one together. The data suggest that a greater emphasis, therefore, be placed on synthesis than on analysis. This is the more difficult task. The data do not indicate if adults differ any at this point but presumably they do. The task of the teacher, then, will be to be most creative in an area where it may be most difficult to be creative. Children can be led to devise ways to form significant groups and can be directed into more parsimonious and meaningful action in doing so.

V. Recommendations for Further Research:

The data reviewed suggest several areas of further research in the area of the concept of aprasia.

1. What are minimal levels of group comprehension necessary for various kinds of life activities and careers? The data present the idea of the type extremes and imply a movement from one to the other. The ascertaining of the threshold of comprehension of groupness for living in society yet remains to be ascertained.

2. In the military there are many men who are discharged from service because of "inability to adjust"; they are drummed out of the military "for the good of the service". It may be that there particular men are unable to adjust because of their lack of group concept, or, more briefly, because of aprasia. There might be a number of these who by careful training in group concepts could be saved for a military career. It might be possible to classify positions, too, according to the degree of group concept necessary to fulfill the minimum requirements of success in them. Persons with poor group concept could be placed in positions requiring a minimum of group concept or team work. Nothing in the data offers help at this point, but it could be a fruitful area of inquiry.

3. The application of the measurement of aprasia by the school counselor could result in helping students with aprasia to profit more from instruction. If a student cannot participate adequately

in class discussions or class projects, because of aprasia, then this remedial training might be of great value.

4. Another area of research application of the concept of aprasia would be in studies of leadership. It could be hypothesized that leaders should be able to analyze groups in terms of normative behavior, roles, interaction, identification of units and, therefore, also be able to synthesize and pull a group together to perform on a particular task. Thus, we could determine because we can measure aprasia, differences in people with aprasia and those without aprasia in terms of their leadership ability, holding other things constant. It might also be inferred from the theoretical and empirical literature on the relationship of leadership to group complexity that different degrees of aprasia might be related to differing degrees of the effectiveness of leadership from highly complex large groups down to small and very simple groups.

We might be able to explain the literature on personal characteristics of leaders which indicates that the intellectual level of the leader can be either too much lower or too much higher than the group to be effective. The leader's behavior must be somewhat near but slightly above the level of the group he is to lead. It may be that the extremely gifted brilliant people are suffering to some extent, from aprasia in that due to the very fact of their brilliant intellect they have tended to be more self-confident, to be "loners," and have never developed a full and useful group concept. If this were to be true, then, we might also utilize to a very effective, greater extent, our most brilliant intellectuals to become our most effective leaders.

5. There might be some value in ascertaining a potential teacher's level of group concept. The teacher's task is to develop meaningful group activity among students. Some questions could be investigated. Is there a relationship between aprasia and a chosen method of teaching (authoritarian lecture or permissive discussion)? Is there a relationship between a teacher's group concept and the level of deportment of the class? Is there a relationship between a teacher's level of aprasia and his inability to make a satisfactory personal adjustment to the expectancies of his position? How could the measurement of group concept awareness be used in placement of teachers?

6. Aprasia may be significantly related to birth order in families. What are the differences in group concepts between only children and children with siblings? What differences exist between oldest and youngest family members? What differences are there between twins, both fraternal and identical?

F. There is a possible relation of late socialization being studied in the context of aprasia. When a retarded child is moved from a home setting to an institutional setting, how is his concept of the new group relationship developed? How is socialization in this and similar contexts related to aprasia?

Aprasia can be a most useful sociological concept. The fact of the inability of certain persons to interact beyond a one-to-one basis can cause the serious educator to ask how prevalent this is among those who look to him for guidance. The requirement of persons in contemporary American society to interact frequently and in varying ways in larger relationships lends urgency to the need for understanding the movement in maturation from a state of aprasia to group activity. The satisfaction of aiding a person by providing mental stimulation, social expectation and social opportunity to participate more meaningfully in group activity is its own reward.

SUMMARY

Aprasia, as herein defined and described, is the ability to perceive persons as separate entities but not in meaningful or significant interaction in group activity. This was an exploratory study to ascertain the degree of aprasia present in select groups of male children of normal and retarded intelligence in both the family and the institutional setting. This was done by probing for each child's perception of eight comprehensive group characteristics in four areas of common experience, - family, play, work, and school. Each child's insight and foresight were measured in these four areas.

The subjects were grouped into a two by three research design classified by three levels of ability and two settings. The three ability levels were: normal six-year-olds, normal twelve-year-olds and twelve-year-old retardates with an IQ of 65. The two settings were the family and institution. There were twenty subjects in each of the six groups.

The method of testing was interviewing based on original structured situational response settings, a quasi-projection technique. The settings were play toys or pictures of simple situations. The responses by the subjects were tape recorded and rated by two trained interviewers. Data were recorded both qualitatively by relative numerical ratings.

The tabulated data were subjected to analysis of variance to ascertain areas of significant differences. These areas were then statistically partitioned into successively smaller areas of significant difference which were ascertained by the application of Fisher's "t" test. Other appropriate measures were also used.

The statistical analysis strongly substantiated three hypotheses. 1. There was a significantly greater incidence and degree of aprasia among retardates than among children of the same chronological age. 2. There was little difference between retardates and normal children when mental age was the defining factor. 3. There was a greater degree of aprasia among institutionalized persons than among those in a family setting when these two variables were used to examine comparable groups. The substantiation of the fourth hypothesis was not strong and the predicted directions of variance not clearly indicated. There were significant differences among the groups and settings of the respondents in the number of expressive and instrumental choices made.

Since there was significant variance and because the hypotheses were substantiated, the data were further analyzed. Differences between family and institutional settings were found to be consistent and significant for each ability level. Differences in the ability to analyze and to synthesize social situations were consistent and pronounced. A curvilinear variance for the six test groups was found to exist consistently over the eight group characteristics. The pattern variable analysis basis of hypothesis four, was critically evaluated with suggested modifications. The unobtrusive measure of the use of superhuman power was discussed.

The movement of the child from an early state of aprasia to group activity on an ordinal scale as modified by chronological age, mental age, social expectation and social opportunity was the overall focus of the discussion.

Certain practical results were suggested. Educational techniques and guidance could be influenced by the following findings: the children did relatively more poorly in their comprehension of role, normative behavior and group identification than the other group variables; institutionalized children scored poorer than children in families on all levels; social synthesis was consistently more difficult than analysis. A second practical conclusion was that aprasia can be successfully operationalized and is a useful social concept.

The study of the group is the stock-in-trade of the sociologist. The extension of young, developing minds to comprehend the multiplicity of groups in the social milieu is at once intriguing and challenging. To chart the movement from aprasia to group participation for populations of children is, therefore, in the mainstream of the sociological tradition at the basic level of sociological inquiry. That results with the range and level of significance that eventuated should have been obtained was more than adequate compensation for the effort. The hope that the results may in some way benefit developing children at home or in institutions, normal or retarded, has contributed immeasurable personal value to an otherwise prosaic endeavor.

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APPENDIX A

GENERAL AND SPECIFIC EXPLICATION OF THE TESTING AREAS: THE INSTRUMENTS

[illegible]

[illegible] (9), cites primarily [illegible] the eight characteristics of a group. They were:

1. Identity as a unit
2. Social structure
3. Individual roles
4. Interpersonal relations
5. Norms of behavior
6. Common interests and values
7. Goal directed
8. Permanence or continuity

The investigator proposed [illegible] to relate these characteristics to each of the major areas [illegible] and to discover their presence or absence in each of them. In order to discover the presence of these characteristics, certain questions had to be answered, explicitly or implicitly, in studying them. These questions in relation to the above characteristics were:

1. Did the subject perceive the group as an identifiable unit? Did he think of an identifying name with the group?

2. What evidences were there of structure, - authority, for instance.

3. What was the nature of the subject's role concepts? How many roles did he design? Was there evidence of role saturation?

4. What degree of communication existed? What contacts were suggested?

5. What evidence was there of normative behavior? Were there rules of some sort that seemed to be operating?

6. What were the cohesive forces that seemed to be evident?

7. What was the goal direction?

8. What evidence was there of a concept of continuity?

These concepts are basic to the understanding of the group concept of the child. Though not explicitly stated, under each testing area they were to be implied in all the observation and

[illegible] Explication of [illegible] Area

[illegible] exploratory. No [illegible] of previous [illegible] explication of [illegible] design is mandatory.

[illegible] a specific theoretical or [illegible] for its inclusion [illegible] for collecting [illegible] operationalizing [illegible] was prefaced [illegible] the data from the [illegible] and quite [illegible] of the testing [illegible] to repeat them ver- [illegible] there were certain [illegible] testing area. In the [illegible] is explicated on this [illegible] the set (operationali- [illegible]. This outline is used [illegible] synthesis situation [illegible] model for the instru- [illegible]-expressive dimension.

[illegible] measure, was the [illegible]. Because of this, it is [illegible] this section. Pictures of [illegible].

Testing Area I-A: [illegible]

[illegible] a social group. It [illegible] given by Fischer. [illegible] their first group asso- [illegible] part of the family group, he [illegible] within it that make [illegible] makes, therefore, may be [illegible] indicative of the degree of his awareness of the family [illegible] group.

[illegible] set. The set for the analysis was a child's playhouse. It [illegible] furniture made [illegible] room seem realistic. [illegible] of the set. Scale size [illegible] younger couple and [illegible] the household setting.

[illegible] uniform patterns before [illegible].

[illegible] is about to go [illegible] with these [illegible] they are [illegible].

[illegible] observer will note:

1. [illegible] family unit? Did [illegible] family? Any obser- [illegible].

2. [illegible] social structure with [illegible] power? Who made [illegible]?

3. [illegible] differentiation? What [illegible]?

4. [illegible] reciprocal relations? What did [illegible] the communication network?

5. [illegible] behavior? What rules [illegible] things must or ought the [illegible]?

6. [illegible] to be the [illegible] interests of the family?

7. Were there any evidences of goal or purpose in the family?

8. Was there any indication of the permanence of the family?

Testing Area I-B: [illegible].

[illegible] assumptions. The family per se is not necessarily con[illegible] as a group. There are times when it may be [illegible] each of whom is pursuing his own interests. [illegible] group activity in the family, it becomes necessary for some member of the family to act as an organizing agent, [illegible] initiate the group activity. This person assumes [illegible], assigns what is to be done, centers communi[illegible], and then carries them to a conclusion. [illegible] of such action was indicative of the [illegible]'s comprehension of the family as a group.

[illegible]. The set was the same as for Test I-A.

The Narrative. It is a nice warm day. The sun is shining. The father thinks that it would be a good day to have a picnic. Everybody in the family wants to go, - baby, brother and sister, mother and father, grandmother and grandfather. Pretend that you are the father. What do you do as a father to get things read, get people into the car and leave for a picnic? Show me.

Desiderata. The same as for test 1-A.

Testing Area 2-A: Play Analysis.

Basic Assumptions. Formal games exhibit the characteristics of group behavior. Understanding the game depends upon the analytical ability of the observer. Children are exposed to formal games as participants on the play ground or as observers in the stands or in front of the television. Baseball is one of the most common games among boys. The subject's perception of teamwork, therefore, was indicative of his analytical ability; his lack or perception indicated the degree of aprasia.

The Set. There was a picture of a baseball game in progress. There were players, officials, coaches and assorted spectators.

The Narrative. It is a nice day so you and I are going to go to a baseball game. Here we are (show the picture). They are playing ball already, aren't they? Let's play like I have never been to a ball game. You tell me all you can about it.

Desiderata. To find the answers to the following questions:

1. What were the evidences of the identifiable units? Did teams have names? Were they dressed differently? Did they sit in different places?

2. What was the structure of the situation? What did the umpire do? Who told the players what to do?

3. What were the individual roles of the players? How many roles were differentiated?

4. What communication patterns seemed to emerge?

5. What comprehension was there of normative behavior? What were the rules of the game? Who interpreted the rules?

6. What evidence was there of common interest among the players? What was evidence of common interest among spectators? What evidence of common interest was there among players and spectators?

7. What was the goal or purpose of the game? Was winning the only purpose?

8. Was there evidence of continuity?

Testing Area 2-B: Play Synthesis.

Basic Assumptions: To assemble one's peers into a game playing situation is to synthesize a group. This is a common enterprise of children at play. As the child assigns roles, sets norms, gives the goals, and establishes authority and communication he will be exhibiting his perception of the group. Thus, the child projects into a situation his abstraction capabilities for group synthesis.

The Set. The set will be a simple table top with a collection of boy and girl figures.

The Narrative. I like to play games. Do you like to play games? What game do you like to play? Take these little boys and girls and show me how you play that game.

The Desiderata. The same series of questions and probings used in Test Area 2-A applied to this area.

Testing Area 3-A: Work Analysis.

Basic Assumptions. Work situations that are present throughout society are structured group situations. The child observes various kinds of work situations. Men at work, however, will have meaning to the child to the extent he is able to analyze the situation and the respective roles of the individuals involved.

The Set. The set was a filling station model. It was built to scale and was quite complete. There were fourteen different automobiles and fifteen human figures dressed and equipped for various tasks.

The Narrative. This is a busy filling station. Many men work here. Play like you own this station and that all these men work for you. Each man has his own job. Tell me what you will have each man do. Use as many of the men as you want.

Desiderata. Seek answers to the following questions:

1. What was the name of the station? Why did it have a name?

2. Who told the men what to do?

3. What did each man do?

4. Who talked to whom on the job?

5. Were there any roles of behavior indicated, - time, place to work?

6. Were any common interests evident?

7. What goals were to be achieved by working?

8. How permanent was the station?

Testing Area 3-B: Work Synthesis.

Basic Assumptions. Many times in life one must assemble a number of his peers or associates to accomplish a task that is much too difficult or too complicated to do as an individual. To be able to see how individuals can become parts of a functioning group is to synthesize a group. The completeness of the action is indicative of the degree of abstraction.

The Set. This set was a model stock truck. It had a number of scale sized horses, colts, cows and calves. There were several human figures, both male and female. The back gate of the truck was open and the animals were arranged behind and to the side of the truck. The human figures were arranged as though they were watching without being involved. There was a man beside the cab of the truck, he was designated as the truck driver. The cattle, truck and people were arranged in a given pattern at the beginning of each interview.

The Narrative. Here we have a truck driver who has had an accident. He stopped his truck to get a cup of coffee. He has just come back. He sees that the gate of the truck is open and that all his animals have jumped out. See where they are standing? Here is the truck driver. He wants to get them back into his truck. He looks around and sees some people watching him and the animals. Play like you were the truck driver. Show me how you would get the cows and horses back into the truck. Use any of these people to help him.

Desiderata.

1. Note how the driver structured the situation, how he gave orders and enlisted aid.

2. What roles did he assign to persons? How did he have them functioning in their roles? How many different roles were

[illegible]?

3. How did these people keep in contact with one another? How were their actions coordinated or integrated?

4. What was the pattern of reciprocal relations?

5. Does the driver establish any kind of roles or norms?

6. Were any common interests mentioned?

7. What is the goal? How realistic is it? Does he accomplish it?

8. Is there any evidence of group continuity?

[illegible]: ______________.

Basic Assumptions. The school [illegible] will be the child's first introduction to a highly structured, functional bureaucracy in which he is a personal participant. A part of his socialization in the formal setting is to become acquainted with the structure and to [illegible] him to it. Each child in the sampling frame had been a part of a formal school situation.

The Set, The Narrative, The Dichotomy. The format for this area of coding was altered to include a brief, formal questionnaire. The questions asked in sequence drew heavily upon the child's comprehension of the school of which he is a part. It was presented as follows:

Let's talk about your school for awhile.

1. Does your school have a name? What is the name of your school?

2. Who is your teacher? Do you like your teacher?

3. Tell me some of the things your teacher does each day.

4. Does your teacher tell you what to do? Do you talk to your teacher? Do you talk to the other boys and girls?

5. What are some of the things you must do when you are in the school room? What are some things you must not do?

6. Are you learning to read, to write, to use numbers? Why do they teach you these things?

4. Why do you think boys and girls go to school? If the child answers that their parents make them, ask: Why do they make them go?

5. Do you think there will always be school for children?

Testing Area 4-B: [illegible].

Basic assumption. Every bureaucracy has an organizational chart. If one is to understand the working of the bureaucratic structure he must have some concept of the organizational structure. In a bureaucracy the people are related in chain-of-command relationships to one another. Very often they are linked through an intermediary person. If a person is able to reconstruct the organization it will show some depth of concept of the group.

The set. A table top covered with white paper was before the child. There were some figures of both men and women; one figure was a boy. There were crayons for the child to use to indicate relationships.

The narrative. A school has both children and grown-ups in it. The grown-up people help the children in many ways. I would like for you to think of all the grown-up people in your school. See these little men and women? Let's play like some of these little men and women are the people in your school. This table top will be the whole school. Just like this. Here you are, a boy, and here is this lady who is your teacher. Who else do we need to make our school just like yours? Use the little people to show me where they are. Now tell me what they do. (The interviewer probed to find out if there was a principal, a secretary, a man who cleans the floor, a man who helps the man clean the floor, bus driver, policeman, cook, superintendent. If there were other people, the interviewer asked: 1. What this person does; 2. Who tells him what to do; 3. Who pays this person; 4. How this person is related to student by asking what he does for the boy.)

Estimate. The interviewer probed until he had a clear idea of what the child's concept of the organization was. The contrast that was noted was the number of one-to-one relationships given in opposition to the number of secondary or chain-of-command relationships the child grasps. For instance: Did the child relate directly to the principal or did he relate to the teacher who in turn related to the principal? Or again, did the principal tell both the teacher and the janitor what to do?

Preliminary Statement to Testing Area 4-D

As was previously stated, it was hypothesized that the retardate [illegible] instrumental in his relationships. [illegible] situation was an adaptation of the pattern variable model to child decision. The model was proposed by Talcott Parsons as being completely general, relevant for any action frame of reference, and relevant for the analysis of functional problems.[1] The school situation was chosen to relate to children because in the school, the child must make his decisions for interaction. He may have been the only child in his family, taught to play alone, paid little attention to the work-a-day world. In school, however, he is thrust into group situations with peers and forced to make decisions.

To measure this dimension, the decision was made to use pictures. The pictures were [illegible] school scenes.[2] Each [illegible] all five pattern variable decisions. However, one aspect of the decision predominated in each picture. The narrative emphasized this aspect. These pictures were drawn especially for this sequence of the research by Mr. Doug Smiley, commercial artist, Enid, Oklahoma, from verbal descriptions supplied by the author.

[illegible] Area A-D-(1): Self-Oriented -- Collectivity-Oriented Decision.

Basic Assumptions. The basic question posed in this dichotomous choice is whether the self or the collectivity takes precedence. The basis of group action is collectivity orientation; in this attitude the actor puts the welfare of the group above his own personal interests. Morality itself is the claim of the group upon the individual. The response to this decision indicated one predisposition toward the self or the collectivity.

The Set. There was a picture of a child entering the school ground as his peers were already there and playing. This child had a sack clutched in one hand.

The Narrative. It is early in the morning before the children have gone into their school. They are playing and having lots of fun. See what they are doing? There is a boy coming through the gate. He has a sack of candy in his hand. The children do not know what is in the sack. The boy has been thinking how nice

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1. See Talcott Parsons (32); also Edward C. Devereaux described the pattern variable model and its assumptions beginning on p. 38. Implications for the pattern variable application were drawn from these sources.
2. Pictures are included in Appendix C.

[illegible] when he comes through the [illegible] should give a piece of [illegible] If he does, they will be very [illegible] any candy to eat by himself. Play like you are that little boy. What would you do? [illegible] give each child a piece of candy? Would you keep it for yourself?

Rationale. A clear cut choice between self and group.

Testing Area I-B-(2): Universalism -- Particularism

Basic Assumptions. In this dilemma, the decision must be [illegible] whether the object [illegible] judged in terms of some universal or general frame of reference or in terms of some particular reference in which the [illegible] personally involved. To [illegible] universal principle [illegible] would be instrumental. [illegible] for extenuating [illegible] personal feeling would [illegible] be expressive. The [illegible] group in the abstract would tend to emphasize the [illegible].

[illegible] Set. There was a picture of a school teacher with a room [illegible]. One little boy (the respondent) seemed to be holding his hand over his face and rising from his seat.

[illegible] Give. The teacher has something she wants to do as [illegible] her desk. See the pencil in her hand? She has told [illegible] in their seats. She told them to look at [illegible] pictures or talk quietly with one another. But, [illegible] to get out of their seats. She has said that if a [illegible] his seat he will [illegible]. Play like you are this little boy who has his hand over his face. You feel a little sick and think you would like to go outside a few minutes. If you leave your seat you will be doing what the teacher said not to do and you may be spanked. Do you think you should stay in your seat?

Rationale. The purpose of this dilemma was to elicit a response showing whether the child was bound to a universal principle [illegible], or emphasized the need to consider the particular case at hand.

Testing Area I-B-(3): Affectivity -- Affective Neutrality.

Basic Assumptions. The main element of this dichotomy is whether the subject seeks immediate gratification or whether he is [illegible] and foregoes immediate gratification for some less ob[illegible]. Group [illegible] to be centered in the discipline of its members who are willing to put aside their own immediate gratification and discipline themselves for the well-being [illegible] of the same school room as in the previous [illegible]. The difference was that the teacher was not in the room.

The Narrative. Here are some children sitting in the school room. The teacher has just left the room to talk to someone on the telephone. The children are by themselves. Some of the children are reading their books like the teacher asked them to do. Two of the children have put their books down and are laughing and talking. The teacher has told them not to do this. See the little boy in the front row? He is looking up from his book. He remembers that [illegible] something he wants to tell the little girl. Pretend you are the little boy. What would you do? Would you pick up your book and read again? Or would you talk to the little girl right now?

The Decision. The child has to make a choice between being a disciplined student or fulfilling his immediate desire to be gratified by talking to the little girl.

[illegible] Card ([illegible]): Ascription -- Achievement.

The Explanation. The crux of that decision is whether the [illegible] consideration in defining a relationship is given to some attributive quality, - [illegible] beauty, - or to some particular [illegible] of behavioral performance. What matters most: who or what the person is or what he has done or is expected to do? Ascription tends to be expressive; achievement is instrumental.

The Set. This was the same classroom as previously shown. However the young teacher had been replaced by a substitute teacher.

The Narrative. The children have come to school today. When they have come into the room they were told that their teacher was sick. There will be another teacher just for today. This new teacher is much older. Her name is Miss Brown. She does not dress like the other teacher. She does not know any of the children. They have never seen her until right now. See her standing in front of the children? She is just ready to begin to teach the class. Pretend like you are the boy in the front row. You are looking at Miss Brown. Do you think she is a good teacher?

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5. [illegible] discusses this variable in his article "[illegible] Status and Personality Characteristics;" see especially p. [illegible].

[illegible] was based on her [illegible] that judgment and [illegible] and goodness [illegible] the right, it was [illegible] understanding [illegible].

[illegible] ability.

[illegible] this dilemma is [illegible] specific level or [illegible] ability. In a sense [illegible] personal re- [illegible] responsibility.

[illegible] the picture [illegible] classroom. No [illegible] present. [illegible] boy [illegible] crying.

[illegible] classroom before [illegible] morning. The [illegible] teacher. She hears [illegible] the boy is crying. She [illegible] dog before he came to [illegible] the dog did not come. [illegible] not wait. All the way [illegible] the dog was lost. This [illegible] want to play with his [illegible] room. Play [illegible] you [illegible] teacher about your lost [illegible] the teacher does not care [illegible] dog."

Rationale: The purpose of this story was to elicit a response of whether the relationship was teacher-student (specific) or friend-friend (diffuse) which would include much more than the specific response.

Summary of Scoring Area A-D.

The dichotomous decisions were tabulated and ranged on a chart depicting the relative values expressed. A profile was prepared for each individual and for each division of the sampling frame. The summary chart functioned as follows:

Summary Chart of Pattern Variable Model.

Test Area	Cathectic or Expressive	Cognitive or Instrumental
-B-(1)	Self Oriented	Collectivity Oriented
-B-(2)	Particular	Universal
-B-(3)	Affectivity	Affective Neutrality
-B-(4)	Ascriptive	Achievement
-B-(5)	Diffusion	Specificity

It would appear that a person whose choices mostly fell into the Expressive column would be more person-to-person related or affective. The person whose choices mainly fell into the Instrumental column would be more utilitarian or non-personal in his relationships. Thus, it was used to test the hypothesis regarding affectivity.

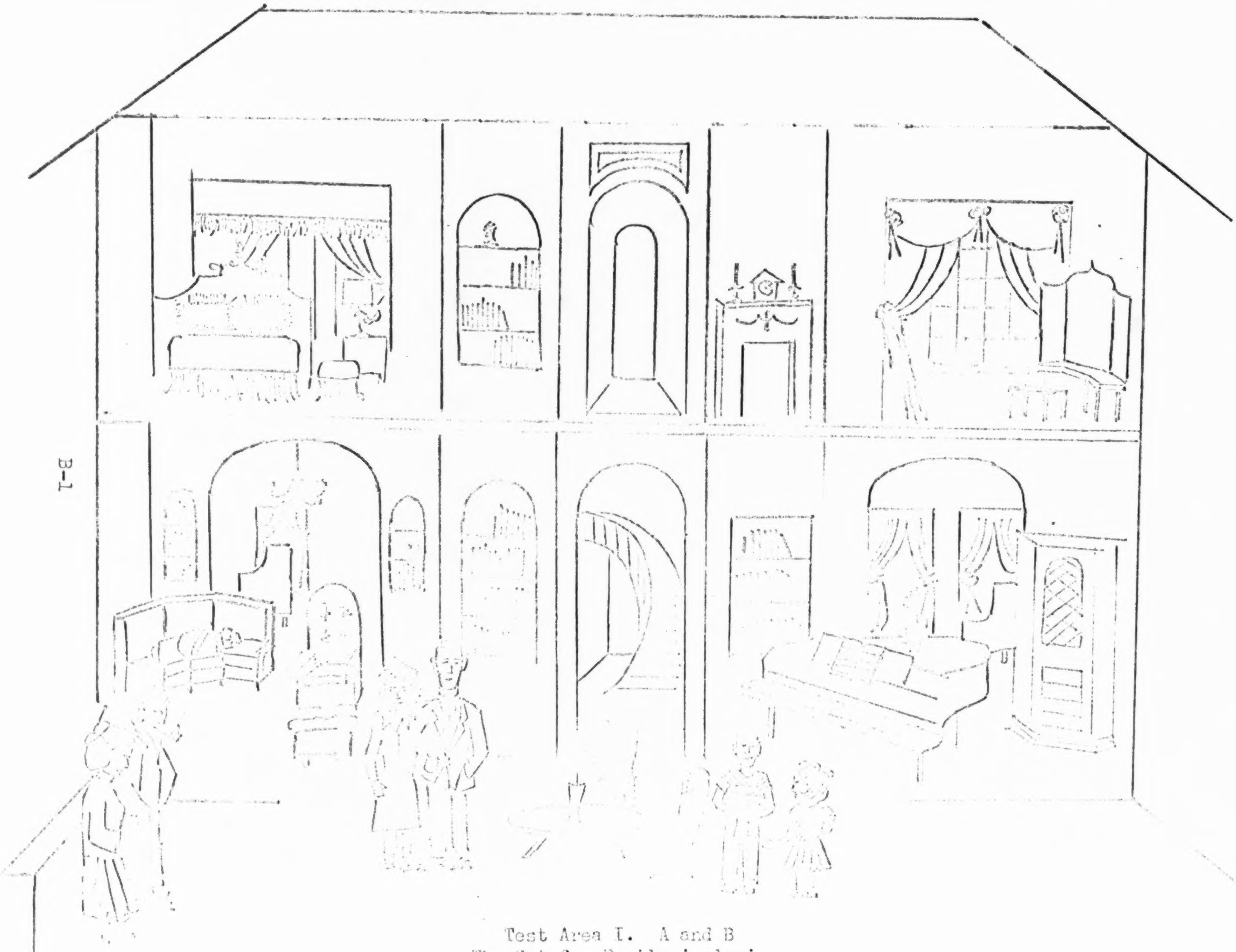
The Unobtrusive Measure - Testing Area C.

An unobtrusive measure is one which arises secondarily in the various set situations. It is an action or a word that may not be a part of the formal interview but which may arise spontaneously within the interview. Their principal use is as indicators; they can be quite productive of relevant data.

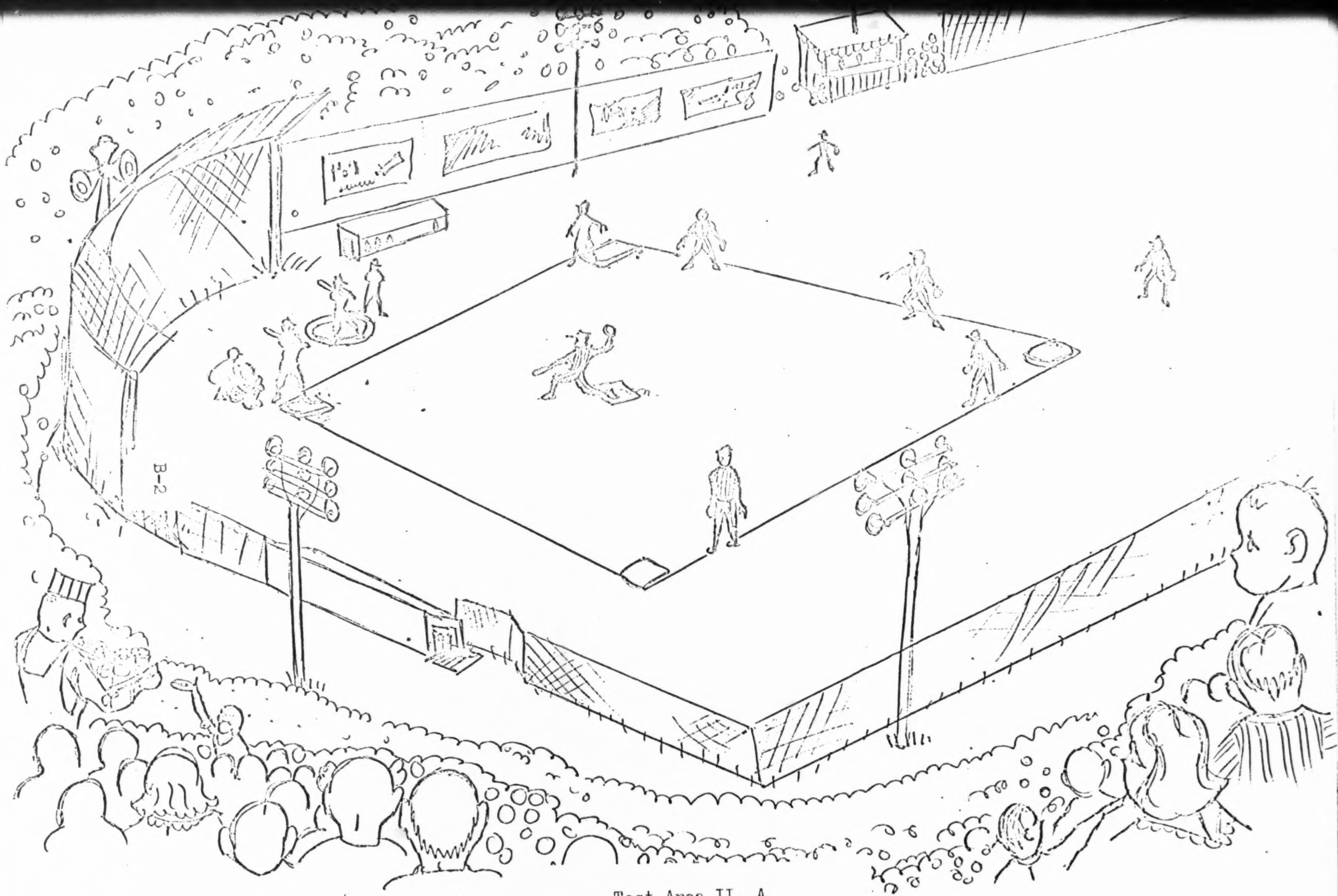
One unobtrusive measure that was noted was the superhuman reference. This was indicated when the respondent used his own physical power in a superhuman way to rearrange the sets or to accomplish his purposes. When the subject made constant use of superhuman strength, he was living in a world or social unreality, a land of fantasy. The presence of such reference was indicative of his distance from comprehending social reality and the additive powers of one's peers in cooperative endeavor.

APPENDIX B

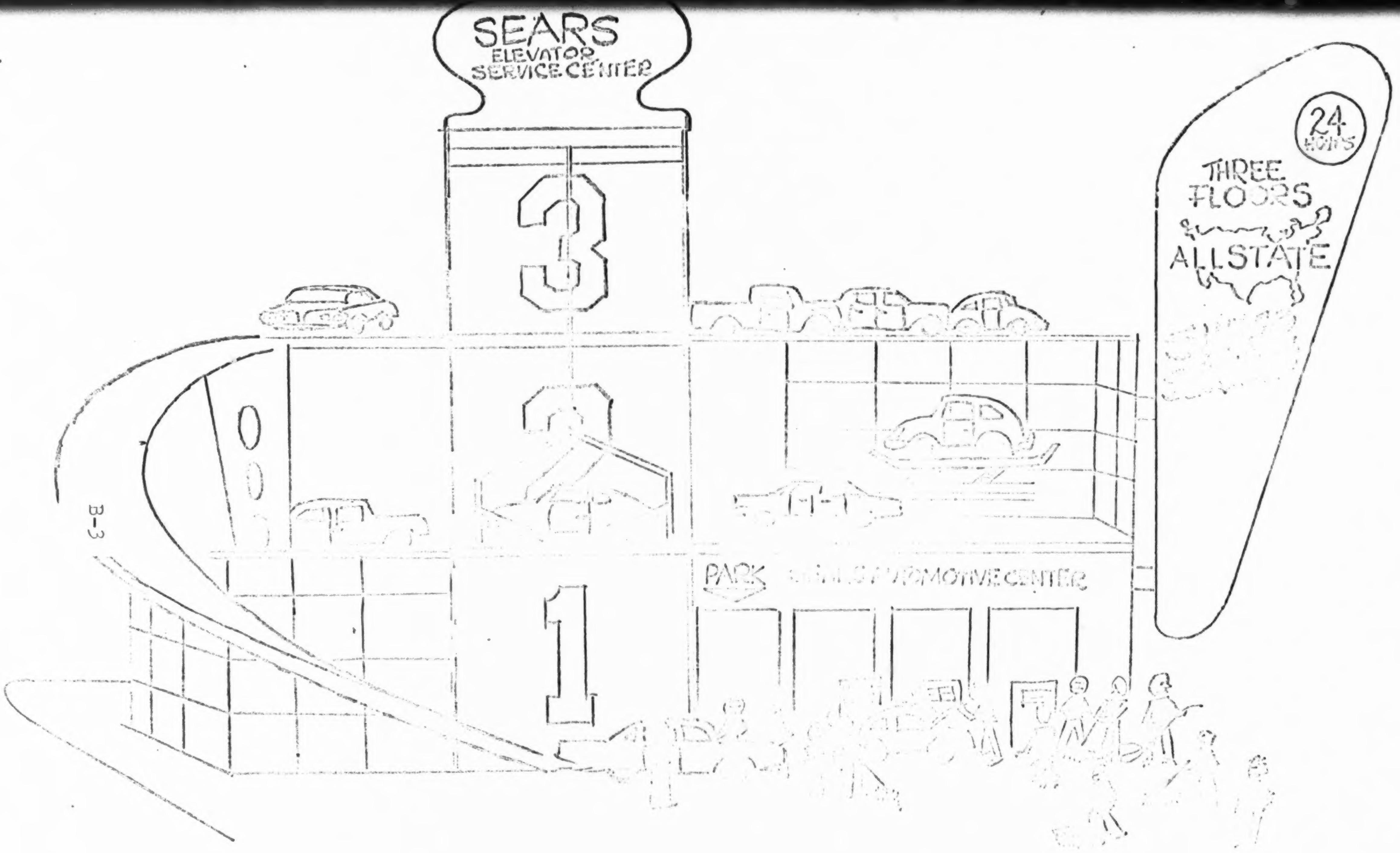
PICTURES OF THE PLAY SITUATION SETS



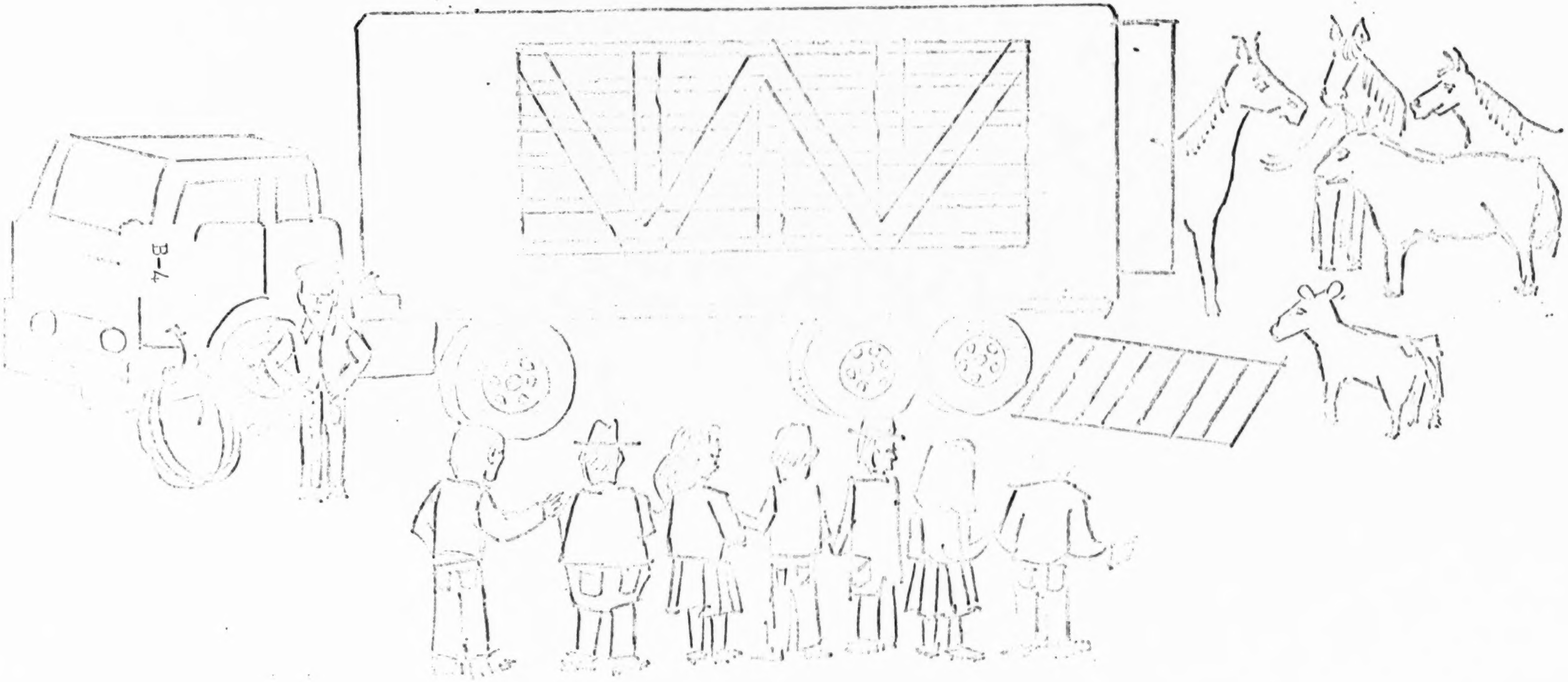
Test Area I. A and B
The Set for Family Analysis
and Synthesis



Test Area II. A
The Set for Play Analysis



Test Area III. A
The Set for Work Analysis

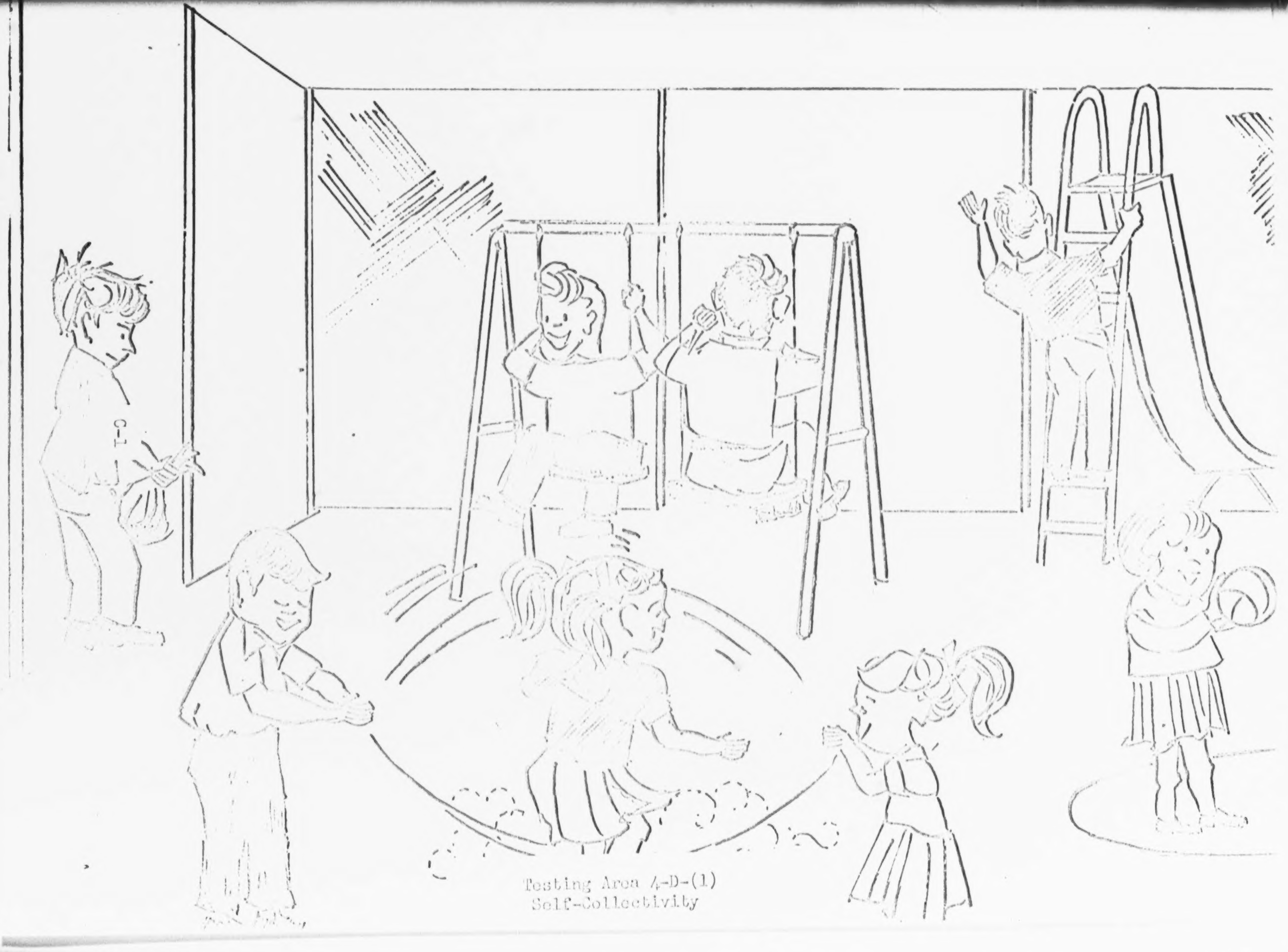


Test Area III. B
The Set for Work Synthesis

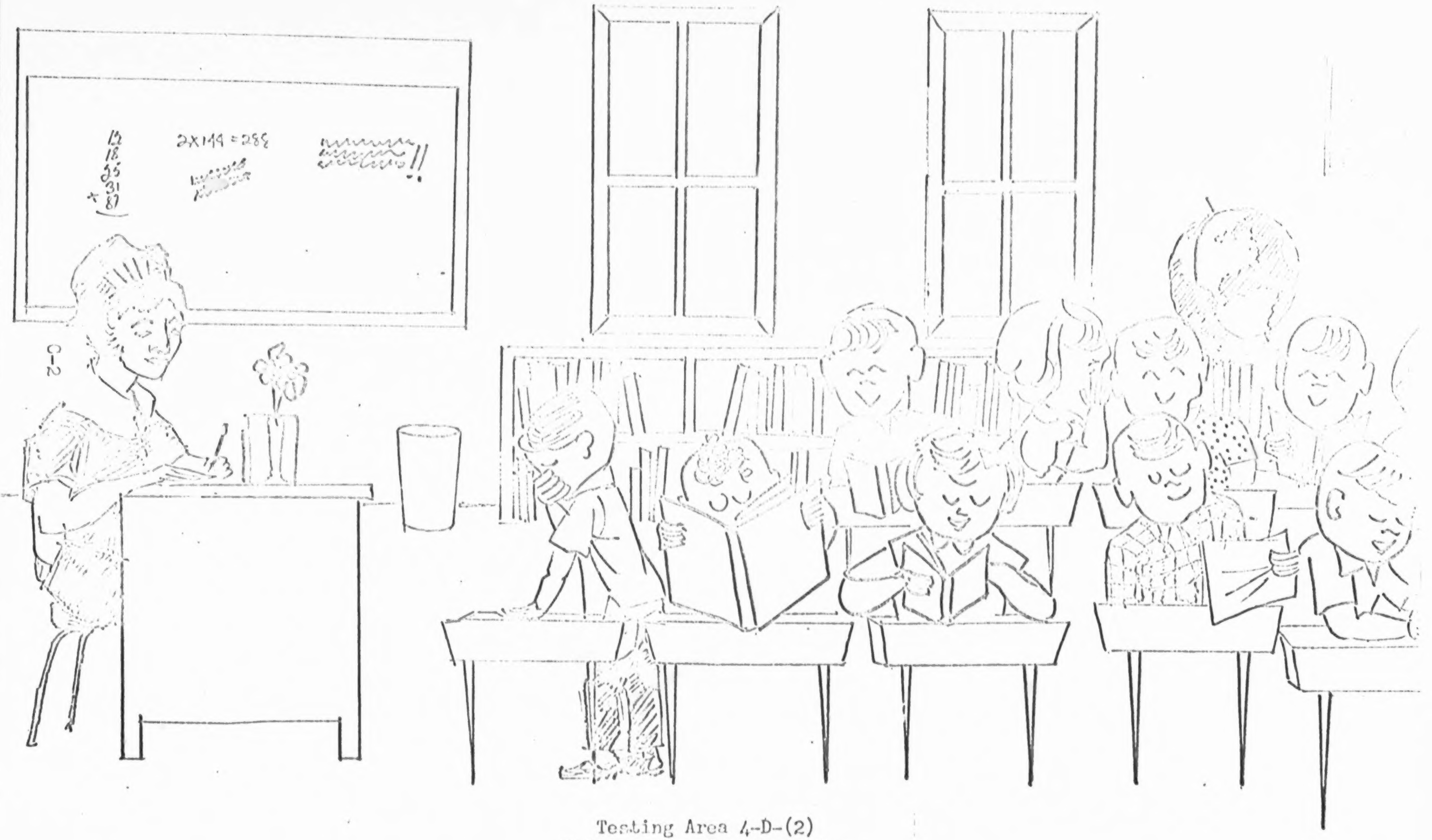
Test Area IV. B
The Set for School Synthesis

APPENDIX C

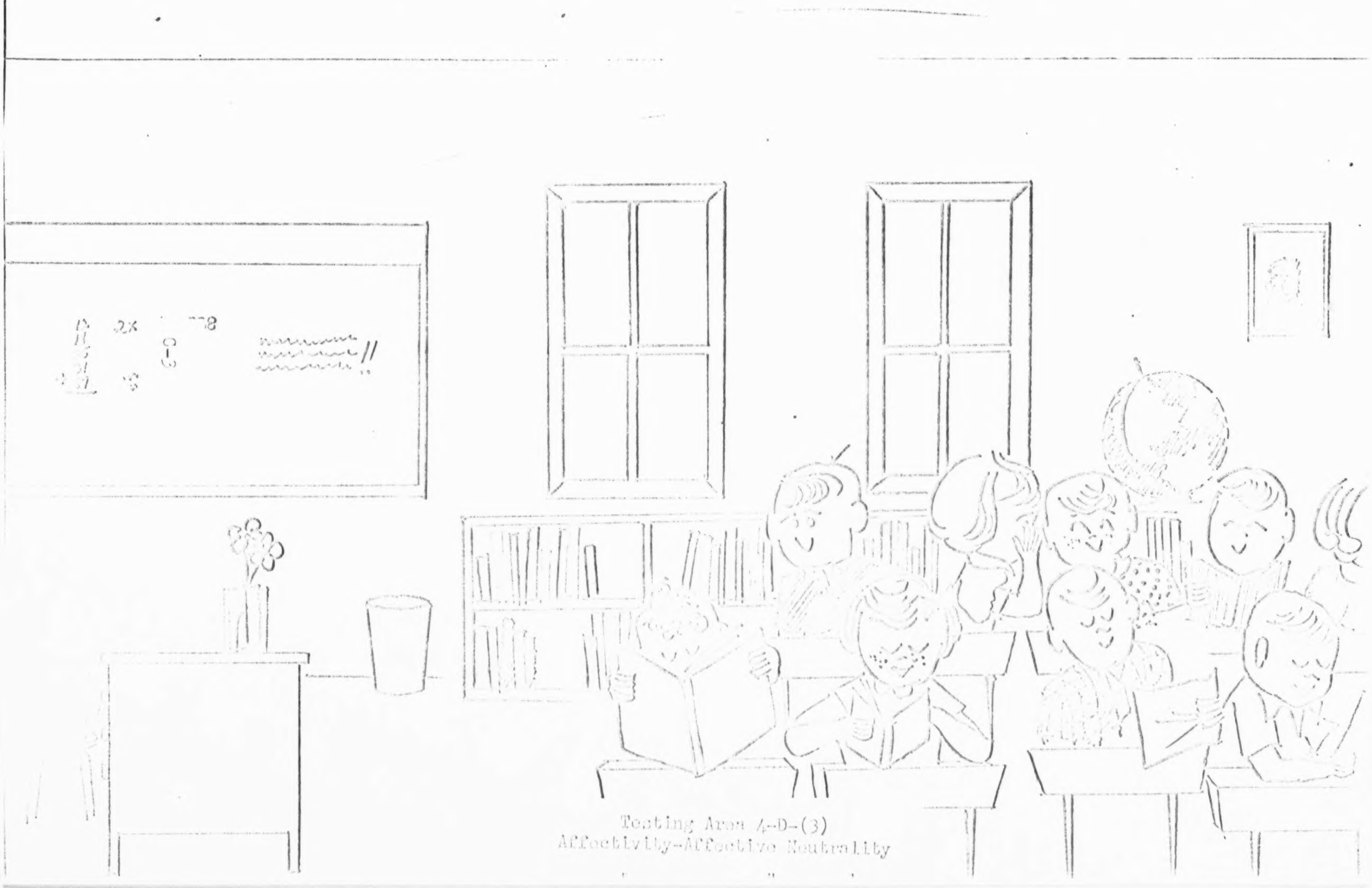
PICTURES USED WITH THE PATTERN VARIABLE MODEL



Testing Area 4-D-(1)
Self-Collectivity

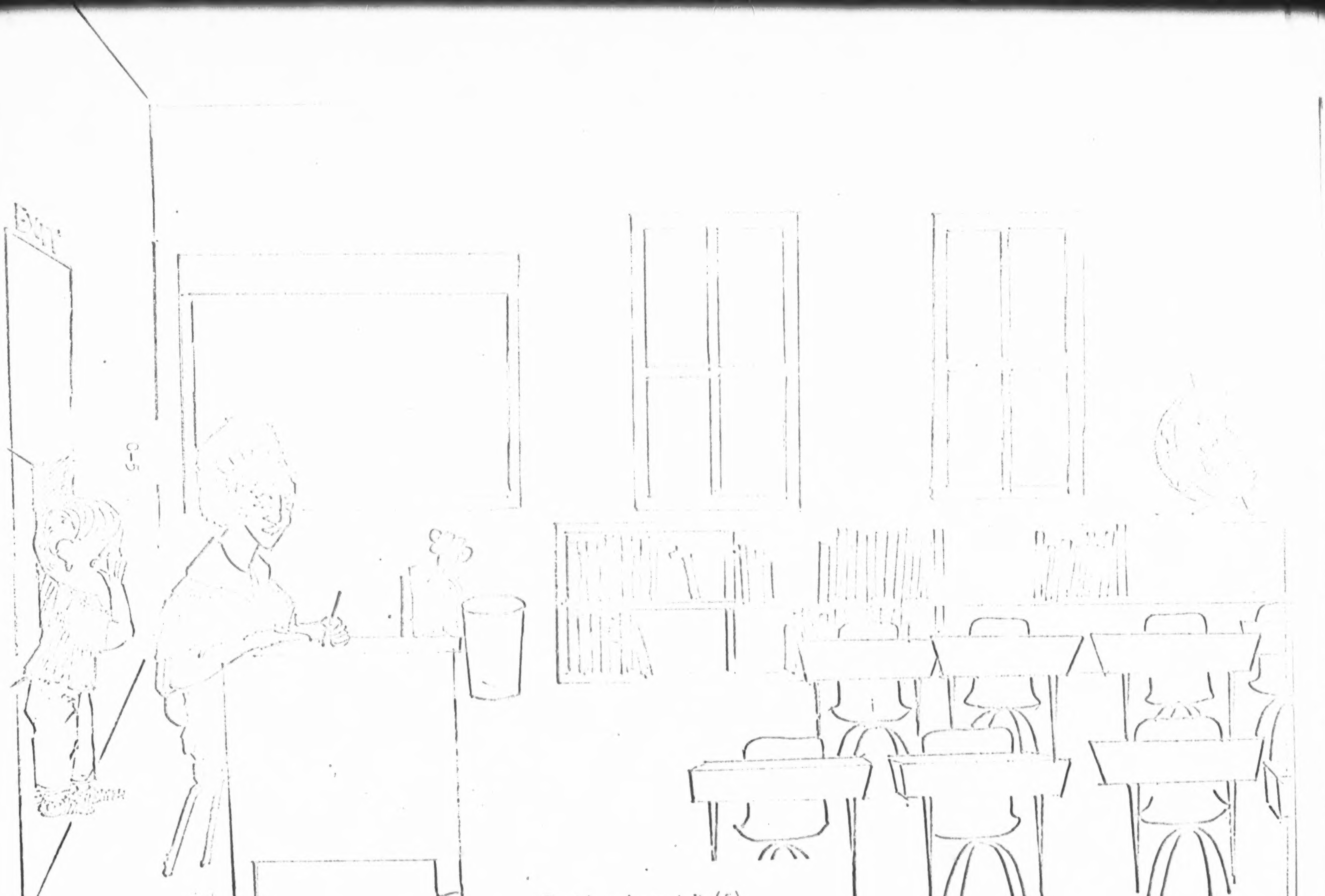


Testing Area 4-D-(2)
Universalism-Particularism



Testing Area 4-D-(3)
Affectivity-Affective Neutrality

Testing Area 4-D-(4)
Ascription-Achievement



Testing Area 4-D-(5)
Diffusion-Specificity

APPENDIX D

TEST AREA EVALUATION SHEETS

The interviewer completed an evaluation sheet for each test area as indicated in the research design. Some test areas had identical sheets; this identity is indicated at the top of the sheet. These identical sheets are not reproduced here although they were used separately by the interviewers in scoring the results in the test areas.

[illegible] DATA

Respondent's Name ____________________

Age ____________________

Grade in school ____________________

M.A. Equivalent ____________________

Respondent's Number ____________________

Respondent's Place in Research Design:

M6-F	M12-F	R-F
M6-I	M12-I	R-I

A. [illegible], the Family

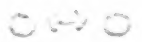
R# ________________
Test Area # ________

_____1. R. identified the family as a unit.................... Yes No N.A.
R. gave a name to the family........................ Yes No N.A.
R. gave names to the family members................. Yes No N.A.

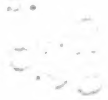
_____2. R. ascribed roles to each member of the family.
(If so, what ____________ ________________)
R. described family [illegible]......................... Yes No N.A.
(If so, how many roles were differentiated? _____
List the roles differentiated:

_____4. R. posited reciprocal relations among all members of family... Yes No N.A.
The communication network would best be described by which of the following diagrams:

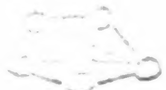
a.



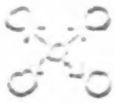
b.



c.



d.



If by some other diagram, describe. (e)

_____5. R. gave evidence of normative behavior basis of family life (if so, how many norms were suggested or implied).. Yes No N.A.

_____6. R. suggested that family had common interests..... Yes No N.A.
(if so, describe briefly)

_____7. R. suggested some goal for the family............. Yes No N.A.
(if so, was the goal attainable?)
was the goal attained in the play sit.?... Yes No N.A.

_____8. R. gave some indication of permanence or continuity of the family.....................................Yes No N.A.

[illegible] 2-A [illegible] 2-B, Play.

R # ______________
Test Area # ______

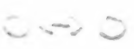
_____1. R. saw the teams as individual units.................Yes No N.A.
R. gave names to teams..................................Yes No N.A.
R. differentiated one team from the other...........Yes No N.A.

_____2. R. indicated an understanding of group structure
for team..Yes No N.A.
R. indicated some one other than player himself
told player what to do.................................Yes No N.A.
R. knows reason for umpire ....Yes No N.A.

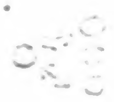
_____3. R. assigned specific roles to specific individuals..Yes No N.A.
How many different roles?________
What were the roles?

_____4. Do players talk to each other?.......................Yes No N.A.
Do people talk to each other?..................... .....Yes No N.A.
Do people talk to the players on the field?.........Yes No N.A.
(Write text of purported conversations on separate
sheet)
The communications patterns are most like:

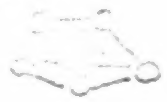
a.



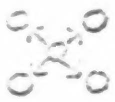
b.



c.



d.



If by some other diagram, describe. (e)

_____5. R. gave evidence of normative behavior concept......Yes No N.A.
R. knew game must have rules.........................Yes No N.A.
(If so, who makes the rules?)______________
Who enforces the rules?____________________

_____6. R. indicated that players had common interests......Yes No N.A.
R. indicated the people at game had common interests.Yes No N.A.
R. indicated that players like each other...........Yes No N.A.
R. indicated that people like each other............Yes No N.A.

_____7. R. indicated a purpose for playing..................Yes No N.A.
R. indicated that winning was the only purpose......Yes No N.A.
(If not, what other purposes?)

_____8. R. gave evidence of idea of continuity or
permanence of the ball teams........................Yes No N.A.

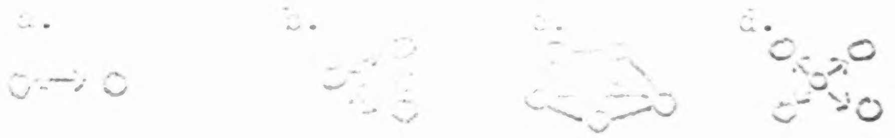
[illegible] D-[illegible], Work Analysis   R # ______________

_____1. R. identified station as a unit......................Yes No N.A.
R. saw roles in life on station.........................Yes No N.A.

_____2. R. knew what the authority of ownership meant.......Yes No N.A.
R. saw that tasks were carefully assigned by
authority..Yes No N.A.
R. described decision making.........................Yes No N.A.

_____3. R. assigned specific roles to specific individuals..Yes No N.A.
(If so, how many roles were differentiated? _____)
What were these roles?

_____4. R. posited reciprocal relations among all the
workers...Yes No N.A.
The communications patterns are most like:



If some other diagram, describe: (e)

_____5. R. gave evidence of normative behavior concept......Yes No N.A.
There were rules for doing the work.................Yes No N.A.
There were times for coming to work.................Yes No N.A.
There were times for closing the work..............Yes No N.A.

_____6. R. mentioned that men had common interests.........Yes No N.A.
The common interest was money........................Yes No N.A.
The common interest was friendship..................Yes No N.A.
Other common interests?

_____7. R. suggested some goal for the station.............Yes No N.A.
The goal was money.......................................Yes No N.A.
The goal (goals) was attainable.......................Yes No N.A.
The goal was attained...................................Yes No N.A.

_____8. R. suggested some idea of continuity................Yes No N.A.

Was there any superhuman use of strength in manipulating materials?
If so, what?

Evaluation: Test Area 3-B, Work Synthesis R # ____________

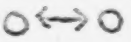
_____1. R. gives evidence of an identifiable work unit..Yes No N.A.
(List any words used to identify group such as gang, crew, crowd, etc.)

_____2. R. gives structure to the situation.............Yes No N.A.
Driver becomes the authority figure.............Yes No N.A.
(If other than driver, who?___________)

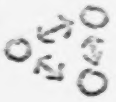
_____3. R. has driver or authority figure assign specific roles to specific people...............Yes No N.A.
How many different roles were assigned? ______
Describe or name these roles:

_____4. R. posited reciprocal relations among people....Yes No N.A.
The communications patterns were most like:

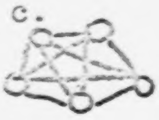
a.



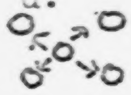
b.



c.



d.



If some other diagram, describe: (e)

_____5. R. had driver set up rules for tasks............Yes No N.A.
R. had an integrative factor for task..........Yes No N.A.
(If so, what was it?_____________________)

_____6. R. perceived some common interest of people.....Yes No N.A.
(If so, what was it?_____________________)

_____7. R. posited a goal for the group.................Yes No N.A.
Goal was realistic..............................Yes No N.A.
Goal was attained...............................Yes No N.A.

_____8. R. spoke of group continuity....................Yes No N.A.

Was there any superhuman use of strength manifest?

3

Evaluation: Test Area 4-A, School Analysis R # ____________

_____1. Does your school have a name? __________
What is the name of your school? ______________________
Why does your school have a name? ______________________

_____2. Who is your teacher? ______________________
Do you like your teacher? __________
Is the teacher supposed to make the children be good? ________

_____3. Tell me some of the things your teacher does each day as she teaches.

_____4. Does your teacher tell you what to do? __________
Do you talk to your teacher? __________
Do you talk to the other boys and girls? __________
How many boys and girls do you talk to each day? __________

_____5. Do you have rules to follow when you are in the school room? ____
What are some of these rules?

Do you have rules on the play ground? ________
What are some of these rules?

Do you have other rules in school? _______
What are they?

_____6. Are you learning to read? _______ Why?

Are you learning to use numbers? ________ Why?

Are you learning to write?_________ Why?

_____7. Why do you think boys and girls go to school? (if answer is that parents make them, ask why do they make them?)

_____8. Do you think we will always have schools for children? Why?

Evaluation: Test Area 4-B, School Synthesis R # ____________

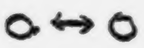
_____1. R. made school an identifiable unit................Yes No N.A.

_____2. R. gave structure to the situation.................Yes No N.A.
(If so, describe briefly.)

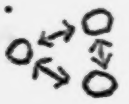
_____3. R. assigned roles (specific things to specific people)...Yes No N.A.
(If yes, how many roles were assigned? _______)
What were the roles assigned?

_____4. R. posited reciprocal relationships among all members of school....................................Yes No N.A.
The communications patterns were most like:

a.



b.



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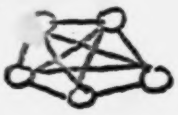
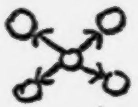


d.



If some other diagram, describe: (e)

_____5. R. gave evidence of need of normative behavior.....Yes No N.A.
How many rules did he suggest? ___________

_____6. R. spoke of the common interests of all the persons...Yes No N.A.
What were the common interests mentioned?

_____7. R. had a goal for the school.......................Yes No N.A.
The goal was attainable....................................Yes No N.A.
The goal was attained in the play situation........Yes No N.A.

_____8. There is some evidence of continuity or permanence.Yes No N.A.

Tabulation Sheet: Test Area 4-D R # ____________

Specific Test Area	Expressive	Instrumental
4-D-1 Self-Collectivity		
4-D-2 Particular-Univ.		
4-D-3 Affectivity-Affective Neutral		
4-D-4 Ascription-Achievement		
4-D-5 Diffuse-Specific		
Totals		

APPENDIX E

MEANS AND STANDARD DEVIATIONS FOR GROUP CHARACTERISTICS

MEANS AND STANDARD DEVIATIONS FOR GROUP CHARACTERISTICS:

A. By Ability Level:

Group Characteristic	Ability Level	Mean	Standard Deviation
Identifiable Unit	N6-F	2.77	1.368
	N6-I	3.17	1.376
	N12-F	1.61	.963
	N12-I	1.70	1.029
	R-F	2.68	1.375
	R-I	3.63	1.371
Total Identifiable Unit		2.59	1.457
Structure	N6-F	2.56	1.150
	N6-I	2.65	1.210
	N12-F	1.23	.883
	N12-I	1.40	.831
	R-F	2.24	1.171
	R-I	2.63	1.641
Total Structure		2.12	1.318
Role	N6-F	2.61	1.084
	N6-I	3.16	1.193
	N12-F	1.82	1.186
	N12-I	2.41	1.398
	R-F	2.78	1.292
	R-I	3.27	1.373
Total Role		2.68	1.349
Reciprocal Relations	N6-F	2.68	1.294
	N6-I	2.45	1.887
	N12-F	1.45	.921
	N12-I	1.87	1.187
	R-F	2.46	1.382
	R-I	2.41	1.491
Total Reciprocal Relations		2.22	1.454

Normative Behavior	N6-F	3.11	1.241
	N6-I	3.71	.976
	N12-F	1.93	1.189
	N12-I	2.26	1.417
	R-F	3.33	1.297
	R-I	3.35	1.433
Total Normative Behavior		2.95	1.420
Common Interests	N6-F	2.85	1.210
	N6-I	3.31	1.000
	N12-F	1.31	.783
	N12-I	1.65	1.079
	R-F	3.03	1.331
	R-I	2.79	1.462
Total Common Interests		2.49	1.377
Common Goals	N6-F	2.54	1.386
	N6-I	2.79	1.178
	N12-F	1.26	.870
	N12-I	1.40	1.007
	R-F	2.78	1.357
	R-I	2.66	1.646
Total Common Goals		2.24	1.423
Continuity	N6-F	2.30	1.269
	N6-I	2.51	1.117
	N12-F	1.16	.449
	N12-I	1.52	1.089
	R-F	2.23	1.051
	R-I	2.05	1.448
Total Continuity		1.97	1.242

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TITLE
The Development of the Social Concept Group Among Mentally Retarded Children

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RETRIEVAL TERMS

- Mental Retardation
- Child Development
- Social Development
- Group Learning
- Social Education
- Aprasia
- Socialization
- Maturation
- Social Participation
- Family life for children
- Institutional life for children
- Pattern Variable Analysis

IDENTIFIERS
Projective Technique

ABSTRACT

This was an exploratory study to ascertain the development of the concept of group life among mentally retarded children. Six groups of children, with twenty in a group, comprised the reasearch design: six-year-old normal children, twelve-year-old normal children and twelve-year-old retardates with an I.Q. range of 50-65 from family settings and from institutional settings. Only boys were used. They were tested by a quasi-projective technique in four common areas of group activity: home, play, work and school. Each child analyzed an existing group in each of these settings and synthesized a group in each of these settings to solve a problem. Evaluations were made on the presence or absence of eight identifying group characteristics. The data were quantified and subjected to an anlaysis of variance. Differences in ability to form concepts were found to be statistically significant. A word, aprasia, was coined to describe the lack of ability to comprehend groupness. The findings included a means to measure the degree of aprasia of an individual, evidence that the home is a better socializing agent than the institution, areas of comparative strength and weakness in group concepts among the different classes of boys, and suggestions for teaching children, both retarded and normal, better group concepts. Special emphasis was laid on the need for teaching group synthesis. Some attention was also given to affective and utilitarian motivations of children.